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Observations upon the Nature and Treatment of Fractures of the Humerus. By JOSEPH AMESBURY, Esq. M. R. C. S. &c.

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IN the sketch, which I have ventured to publish, of the treatment of simple fractures of the lower extremity, I have enumerated some of the evils which attend the common modes of treating fractures of the leg and thigh; and have endeavoured to point out some general principles of treatment, which, as far as I know, are altogether new.

Since I published this imperfect sketch, I have not seen the least occasion to swerve from any one of the principles which I there endeavoured to establish. Indeed, I may say, that every case, which has since fallen under my observation, has served to impress the importance of those principles more strongly upon my mind; and, although much has been written upon the treatment of fractures, by men no less distinguished for their natural talents than for their surgical acquirements, additional experience has convinced me, that much still remains to be accomplished. Under this consideration, I again wish to draw the attention of my brethren to the further investigation of this important subject.

In the various conversations which I have had with Surgeons upon the nature, the degree of importance, and upon the treatment of fractures, I have often been forcibly struck with the different, and even opposite opinions which they seem to entertain. How shall we account for such disparity of opinion in cases where the nature of the injury is clear, and where the effects of

remedies allow of demonstration ? Thinking it may depend, in part, upon differences in the nature of the accident, which have not been sufficiently attended to, I shall make, first, some observations which may be regarded as common to fractures of the long bones in general ; and shall then pass on to the consideration of simple fractures of the humerus.

Fractures of the long bones may be either transverse, oblique, or comminuted ; and they may be considered according to the degree of injury done to the bone, and according to the degree of injury done to the soft parts ; I shall therefore view them as consisting of fractures of the bone merely, or of fractures attended with much laceration of the surrounding textures.

Among the injuries which are confined to fracture of the bone merely, I believe one variety consists in a partial division or crack of the bone, which, for the sake of perspicuity, may be termed an incomplete fracture. I have been led to form this opinion from various experiments upon recent bones while covered by the soft parts. Upon examining these bones in a denuded state, I have found, that a fracture may extend in a transverse or oblique direction through a greater or less number of the fibres of a bone without passing completely through it ; and that if a fracture of this description is attended with displacement, the displacement consists in a bent state of the bone, with a portion of the edge of one or more of the fractured surfaces projecting at the salient angle formed at the fractured part.

I have been led to suspect the existence of such a fracture in several patients, in consequence of my inability to produce motion in the injured part in more than one direction ; from my being unable to produce this motion in any other way than by attempts to bend the bone ; from the simultaneous movements of the upper and lower portions when the lower part was rolled ; from the power which the patient experienced in the limb ; and from the rapidity with which a perfect consolidation of the fracture was effected. I have not, however, yet had an opportunity of examining the limb of any patient who may have died with the existence of such symptoms as I have mentioned : but even in the absence of this proof, I think, the facility with which this kind of fracture may be produced in recently dead bones, is sufficient to warrant the conclusion that such fractures do occasionally occur in the living.*

* Since I made these observations, I have discovered that Mr. Colles mentions that he has seen and examined fractures in the neck of the thigh-bone, which he believed to be of this description ; but as some disease existed in the part, perhaps we are not justified in considering these cases alone sufficient to substantiate the fact.

I can readily suppose the application of a force which would be likely to produce a fracture of this description. A person, while standing in the erect position may receive a blow upon the back of the leg ; but the force acting upon the limb may be only sufficiently powerful to break through a portion of the diameter of the bone, which would give way first at its anterior part. The same kind of fracture might perhaps be sometimes occasioned by the passage of a heavy body over the limb as it lies upon the ground. If the fracture should extend nearly through the tibia, it would become evident to the Surgeon in attempting to bend the bone, though he would not be able to produce any rotatory motion in the seat of fracture. Such a case would require but little surgical assistance for its cure.

A second variety consists in a complete division of the bone, unaccompanied by any material laceration of the periosteum. This variety, which I believe is very common, may be called a complete fracture. It may be accompanied with slight displacement in the angular or in the transverse direction ; and if the fracture be oblique, it may be accompanied with slight riding of the fragments. Oblique fractures of this description overlap very little at first ; but after the expiration of a few days, under common treatment, they sometimes ride considerably. The increased displacement here alluded to, I presume, takes place as soon as the projecting portions of the fractured ends have made their way through the opposing periosteum and other textures, against which they are forced by the constant action of the muscles. Fractures belonging to this variety are, very generally, easily discovered. The fractured surfaces, however, occasionally become so locked together, that, in consequence of the simultaneous movements of the upper and lower portions, a nice examination is required in order to ascertain the exact nature of the injury.

Again ; a bone may be comminuted without any considerable laceration of the periosteum. Should the comminution extend entirely through the bone, the fracture may allow of being as readily displaced as in fractures without comminution, when the periosteum is much torn, and may require as much attention during the period necessary for its cure.

Besides the above varieties, other fractures occur with great laceration of the soft parts, produced by the broken ends of the bone. The laceration which accompanies this variety of fracture is produced by the forcible separation of the fragments.—It may take place at the moment of the injury, by a continuation of the force longer than is necessary to break the bone ; or it may be produced after the accident, by the incautious move-

ments of the patient. I do not mean to include under the head of laceration the contusion of the muscles, nerves, &c. arising from the blow or other force which may have occasioned the fracture, for this is common to fractures and other injuries ; but I wish to confine it to the injury done to the periosteum and other textures, in consequence of the displacement of the broken portions of the bone.

These fractures are usually so exceedingly evident, that the least motion of the limb informs the Surgeon of the nature of the injury. They produce much pain to the patient, and require a great share of the Surgeon's attention during the cure.

I might, with great propriety, consider compound fractures as belonging to the last variety, as the difference in these cases consists only in the degree of laceration of the soft parts. The injury done to the bone in compound fractures does not differ from the injury which is observed in simple fractures. The wound, however, which forms a communication between the bone at the seat of injury and the external air, places these cases under somewhat different circumstances ; and, as the treatment differs in some respects, I shall hereafter venture to speak of them as a distinct variety ; and I hope I shall be able to show that these formidable injuries are now robbed of many of their terrors.

Either of the above varieties of fracture may extend into a joint. This circumstance modifies the fracture sufficiently to authorize me to consider fractures extending into joints as a distinct variety ; because they are often attended with high inflammation of the joint ; and frequently, unless well attended to, ankylosis is the consequence.

I have thought it right, on the present occasion, to make these few general remarks upon the nature of fractures of the long bones, in order that the observations, which I am about to offer respecting the nature and treatment of fractures of the humerus, may not be misconstrued.

Fractures of the humerus may take place at any part. When they occur through the neck of the bone, it is sometimes difficult to ascertain the precise nature of the injury. The fracture sometimes extends through the bone at the part where it gives attachment to the capsular ligament. In these cases the ligament is occasionally so much torn as to allow of the escape of the head of the bone from the glenoid cavity of the scapula.

Through the politeness of Mr. Travers, I witnessed, a short time ago, an inspection of the shoulder of a man who had the neck of the humerus fractured by a fall ; and the parts presented the following appearances :—The head of the bone was bro-

ken off at that part which in anatomical language is called the neck, forced from its natural situation, and was found lying in the axilla. Both tubercles were broken from the shaft of the bone, and were drawn in opposite directions. The shaft of the bone was drawn up by the action of the muscles, so that its upper end came in contact with the acromion scapulæ. Though two months had elapsed from the time of the accident, there was not the least appearance of an attempt at restoration. The man died from a rupture of the heart, and the preparation of the shoulder is now in the possession of Mr. Travers.

This man was a patient in St. Thomas's Hospital, where I had an opportunity of seeing him frequently during life, and of observing the symptoms of his accident, which were these:—The least attempt to raise the arm even passively gave him great pain. The upper end of the shaft of the bone occupying the natural situation of the head prevented the deltoid muscle from falling in, so as to present the usual appearances of fracture of the neck when accompanied with much laceration of the soft parts. This part of the bone could be distinctly felt through the muscles, moving when the arm was rotated, and giving the same kind of sensation to the fingers as when the head of the bone is made to roll under them. When the bone was forced up against the acromion, and, at the same time, rotated, the motion gave great pain, but was not accompanied by crepitus.—When the bone was drawn down gently, and then rotated, a crepitus was discovered, which sometimes gave that kind of sensation to the fingers which we should expect to experience by rotating the head of the bone in a bed of rough pebbles.—A preternatural fulness was felt in the axilla, which gave the sensation of crepitus when pressed towards the humerus, at the time this bone was rotated. Considerable tension continued round the joint to the period of his dissolution.

The cases of this kind that have fallen under my observation have occurred in old people.

Fractures often occur immediately below the tubercles.—These, when complete, are usually easily discovered. When the fragments are brought in a line and the head of the bone fixed, the lower portion should be gently raised, so as to bring the ends in contact, and then by rotating the lower fragment, crepitus may be felt.

I have seen these cases in the young, the old, and in the middle-aged.

But the most common situation of fracture of the humerus is through the middle of the bone. When the upper portion is fixed, crepitus may be felt in the same way as in fractures through

the bone just below the tubercles. A joint-like motion may be perceived by moving the lower portion in different directions.

Fractures through the middle of the bone are common at all ages.

Sometimes fractures happen immediately above the condyles. The appearances in these cases are the same as those of dislocation of the ulna and radius backward, but often much less strongly marked. Extension removes the appearances of dislocation, but these appearances return as soon as the extension is discontinued. Usually a crepitus may be felt when the fore-arm is moved so as to produce a rotatory motion between the upper and lower portions of the fracture.

This accident happens at all periods of life ; the state of the bone, however, renders children much more liable to it than persons more advanced in age.

Fractures frequently take place through the inner condyle. The fracture usually extends in an oblique direction from the trochlea of the os humeri to just above the inner condyle. The symptoms of this accident are thus described by Sir Astley Cooper :—"The ulna projects backward from having lost its support. If the fore-arm be extended, the hand becomes twisted inward towards the side ; but upon flexion these appearances are removed." These symptoms, with the crepitus which might be felt upon "bending and extending the arm," are diagnostic of this injury.

Fractures of the outer condyle occasionally occur. The fracture usually extends from the trochlea obliquely outward to just above the outer condyle. Sometimes a small portion of the condyle only is broken off. In these cases crepitus may be felt by moving the fore-arm upon the humerus ; or by moving the condyle while the body of the humerus remains fixed.

In taking a general survey of the diagnostic marks of fractures of the humerus, as they occur in different situations, I have confined myself to the enumeration of such as may be considered pathognomonic symptoms.

There are other symptoms usually laid down, in speaking of fractures of this bone, such as tension and pain in the part, and want of power in the limb ; but these I have refrained from mentioning, because they may exist independent of a fracture ; and when they occur after an accident, they merely show that some violence has been sustained. The deformed appearances of the limb, which are spoken of by authors, I have also purposely omitted in the above enumeration. I have done so because I regard deformity as a collateral symptom, to be met with only in any considerable degree in fractures attended with much

laceration of the surrounding textures ; and as the indiscriminate mention of its appearances, as a symptom - always to be looked for, is, in my humble opinion, calculated to mislead the inexperienced Surgeon, the observations I shall offer upon this symptom must be considered as applicable only to fractures of this description.

Fractures of the humerus, accompanied with any considerable laceration of the soft parts, are usually attended with derangement of the fragments.

When the fracture passes through the bone just below the tubercles, the deformity is produced by the action of the pectoralis major, latissimus dorsi, and teres major ; which being attached to the lower portion, near its superior extremity, draw it first inward and then upward. In the last direction it is powerfully forced by the action of the biceps, coraco-brachialis, and long portion of the triceps. The superior portion will be directed a little outward by the action of the supra-spinatus, the infra-spinatus, and teres minor, which make the head of the bone perform a rotatory motion in the glenoid cavity of the scapula.

When the fracture occurs between the insertion of the pectoralis major and the insertion of the deltoid muscle, the inferior portion is first drawn outward, and then upward on the external side of the superior. The cause of this position of the fragments is evident. The adductors draw the upper portion to the chest ; and those muscles which arise above, and are inserted below the fracture, draw up the lower portion on the outer side of the upper.

Fractures just below the insertion of the deltoid muscle are often attended with great derangement of the fractured ends.—The deltoid muscle raises the upper portion, and the lower is drawn up on its inner side. Sometimes the fractured surfaces are separated considerably from each other. In a case of oblique fracture that has lately come under my observation, the distance between the fractured ends of the bone allowed the finger, carrying the integuments and a portion of muscular fibre before it, to lie between them, when the arm hung steadily in the bent position by the side.

Fractures near the lower end of the bone, when oblique, are subject to great derangement of the lower portion ; but when transverse, the displacement is not so great as in other situations—an effect which is to be attributed to the greater size of the bone at this part, and to the retentive power of the muscles arising from its surface.

In fractures of the inner condyle, extending through the bone in an oblique direction, the position of the broken portion is in-

fluenced by the position of the ulna with respect to the humerus. No displacement will appear when the arm is bent, but in the extended position the displacement will be evident.

When the fracture extends obliquely through the outer condyle, the broken portion may be drawn a little backward by the action of the anconeus.

Though I have here mentioned the more common varieties of displacement in fractures of the humerus, it is not to be considered that the fractured ends will always be found deranged in the same direction even in fractures that may seem to be similarly situated. It will immediately appear, that the direction in which the different portions become displaced, is greatly modified by the direction which the fracture takes through the bone. The degree of laceration of the soft parts will also contribute to influence the direction of the fragments in whatever situation the fracture may occur. Suppose, for instance, that a fracture extends obliquely downward and inward through the lower portion of the bone, what would be the probable direction in which the lower fragment would become displaced? Would it be drawn up on the inner side of the upper portion? Certainly not; because the fractured surface of the upper portion lying on its inner side would prevent the muscles from drawing it up in that situation; it would therefore be drawn up on the outer side of the upper portion, inclining a little forward or backward at the seat of injury, according to the degree of flexion or extension of the fore-arm, and the degree of laceration of the soft parts.

In my observations upon simple fractures of the lower extremity, I endeavoured to show, that a principal object, in the treatment of these injuries, should be to fix the whole limb by some unyielding substance, continued from one end to the other.—Let us now see how far the same principle will apply in the treatment of fractures of the humerus.

Like the thigh-bone to the pelvis, the humerus is articulated to the scapula by a ball and socket-joint. The former is connected to the tibia by a joint that has a hinge-like motion; and in this respect it does not differ from the kind of joint that connects the humerus to the bones of the fore-arm. They are also both acted upon by powers which tend to displace the fragments of a fracture in the transverse and in the longitudinal direction. Now as these two bones are connected by the same kinds of joints to the bones above and below them, and as they are both liable, from the action of muscles attached to different parts of their surfaces, to be displaced in various directions when broken, we may ask what makes the great difference in the treatment of a fractured humerus and a fractured femur? The humerus, it

will be seen, is so situated, with regard to the other parts of the body, that it may be allowed to hang by the side when fractured ; and that, when placed in this position, the gravity of the parts below the fracture serves materially to prevent displacement in the longitudinal direction. In the arm, too, the muscles are so thin, that splints act more effectually in preventing lateral derangement of the fragments. The thigh, on the contrary, is so placed, that it cannot be kept in a depending state during the cure of a fractured femur. Here we see that the pendent position of the limb, in the treatment of a fractured humerus, is lost in the treatment of a fractured thigh. Again ; the muscles surrounding the thigh-bone are so thick and powerful, that transverse displacement is easily produced ; and, when the fracture is attended with much laceration, this cannot be prevented by any means which do not fix the whole limb. Thus we see, that from the position of the arm with respect to the trunk, and from the thinness of its muscles, we derive advantages in the treatment of a fractured humerus, from which we should conclude, even without a knowledge of the fact, that the treatment of fractures of this bone is far more easy than the treatment of fractures of the thigh.

There is one point, in the consideration of these accidents, which applies equally, or nearly so, to fractures of the humerus, treated in the common way, and to fractures of the femur ; and this is the rotatory motion produced in the site of fracture, by powers usually independent of the muscles of the limb. This our curative means should prevent, for it is a matter of no trifling nature as it regards the ultimate result. It is certainly more likely to take place in a fractured femur than in a fractured humerus, from the greater weight and greater length of the lower limb ; but still the causes which produce it in the one will also tend to produce it in the other. The short splints made use of in the treatment of fractures of the humerus, and frequently in the treatment of fractures of the thigh, have no power to prevent this motion from taking place. This, I think, will appear from the first experiment related in my paper on fractures of the lower extremities. If it needs further confirmation, it may be shown by two circular rods of any given length, with two of their ends brought into contact and surrounded by a piece of tube just large enough to admit them. If we take the projecting end of either of these rods, placed as I have mentioned, we shall find that, by carrying it out of a line with the tube, we shall move the rod which projects at the other end of the cylinder. But if we place the whole upon a plain surface, and attempt to rotate both the rods by the motion giv-

en to one, we shall perceive that the rod to which an impetus is given rotates freely within the calibre of the tube, while the other remains at rest. Now, a fractured arm or a fractured thigh, put up with short splints, is placed under circumstances very similar, as far as it regards the rotatory motion of the rods mentioned in this experiment. The only difference consists in the slight resistance which the muscles give to the rolling of the fragment, in consequence of their being placed as a soft cushion between the splints and the bone.

It will be observed that the rods thus situated cannot be moved in the lateral or longitudinal direction, and very little in the angular; and, supposing them to be prevented from separating as they lie in a straight line, we can only produce a rotatory motion between them. Here we see that the rods can move in any considerable degree only in one direction; but the short splints surrounding a broken humerus not only do not prevent the rotatory motion to which the rods are subject, but they allow of displacement in three directions, lateral or transverse, longitudinal, and angular: therefore, we should infer that a broken humerus, put up with the common splints, is far less secure from the effects of passive motion accidentally given to the limb, than two straight rods whose approximated ends are placed within a portion of tube just large enough to admit them easily.

Indeed, if we lay aside for a moment the slight effect which the muscles have in preventing displacement, we may consider a broken humerus, put up with common splints, to be situated like two straight rods, with two of their ends placed in contact within a portion of tube *much larger* than is sufficient to admit them; and which therefore allows of considerable derangement of the approximated ends, as well as rotatory motion between them.

From what I have stated, it will be seen, that the muscles may oppose the derangement of the fragments of a fracture in three ways:—1st, By the attachment of their fibres round the fractured part. 2dly, By acting as a cushion between the splints and the bone. 3dly, Those muscles which arise above and are inserted below the fracture, tend, by their contraction, to keep the fractured surfaces from separating from each other, as long as the soft parts remain entire.

It has been said that, while the muscular fibres which surround the fracture preserve their attachment at the seat of injury, they tend to prevent displacement of the fractured ends; but suppose they are torn through, and the fracture is quite loose, will the support which they and the other soft parts give to the fracture, as a medium between the splints and the bone, be sufficient to

secure the fragment from lateral derangement—especially if the fracture is oblique? Certainly not. What, then, will become of the third retentive power, derived from the contraction of the muscles, which arise above and are inserted below the fractured part? This power, as soon as transverse displacement is effected, instead of retaining the fractured ends in contact, causes them to ride; and if this is not prevented, deformity is the consequence.

But it is not the lateral displacement of the fractured ends, and the consequent displacement in the longitudinal direction only, that demand our attention: we must guard against angular displacement; by which I mean such a position of the extreme ends of the fractured bone as causes an angle to be formed at the seat of fracture: we must also guard against rotatory motion, which may be occasioned by an impetus given to the limb below the fractured part. Our business is to prevent every kind of derangement, whether lateral, longitudinal, or angular, and thereby to prevent deformity; and every kind of motion between the fractured surfaces, and thus to ensure reunion. Are these indications answered by the common short splints?

In taking a general survey of what has been laid down by some authors who have written upon this subject, we are almost led to suppose that fractures of the humerus are unimportant accidents; that there is little to be done in the treatment; and that the Surgeon may confidently expect a favourable result. But I would ask the ingenuous and experienced Surgeon the result of his observations in the treatment of those cases which have come within his notice, and which have been treated by the common means. Has he not found it necessary to remove and repeatedly reapply his splints during the cure? Has he not frequently, in doing this, produced motion between the fractured surfaces of the bone? Has he not often found, on visiting his patient, that his splints and bandages were loose and disarranged? Has he not often experienced great difficulty in keeping the fractured surfaces in apt and proper contact? Has he not occasionally found all his efforts ineffectual in preventing the occurrence of deformity? Has he not often noticed the cure to be long and tedious? Has he never met with cases in which all his endeavours to produce a union of the bones failed to be successful? Then, who is there acquainted with the treatment of fractures of the humerus, that would say that the common means are sufficient for all the purposes required? Is the prevention of deformity and non-union of no importance to our patients? Is the frequency of their occurrence no stigma on our Profession? It might be said that the short splints have

been used, and fractures of this bone have generally united. So a few years ago, even in this country, stumps were allowed to heal by the granulating process ; many of them did well ; but who will deny the great advantages arising from the present plans of treatment ? I am aware that the best contrived means may be brought into discredit by the mal-practices of the careless and unskilful ; but the treatment of fractures of the humerus with the common short splints cannot be supported upon principle ; nor are they found sufficient to answer the indications which present themselves, even in the hands of the most skilful Surgeons. Is it, then, enough because fractures of the simplest kind unite without deformity—is it enough because non-union is met with comparatively seldom—that we should still go on in the beaten path, and not try to avoid those modes of practice, the results of which disgrace us daily ? I am disposed to believe, that my candid and scientific brethren will agree with me in thinking, that here the treatment of fractures calls loudly for improvement. It is our business to discover wherein the means we employ in the treatment of any disease or accident fail to answer our intentions ; and to suffer such as are discordant with the soundest principles to sink into oblivion, and to adopt in their stead such as are more safe and found to be more suitable.

In the treatment of fractures of the humerus, as in the treatment of fractures of the thigh, our first object should be to fix the whole limb so far as to prevent any motion given to it from being felt in the situation of the fracture. In doing this the hand should be guarded from accidental alterations in position, though, from the great mobility of the wrist, I do not think that *slight* and *gentle passive* motion would be at all likely to affect a fracture of the humerus, even if it were of the loosest kind. Flexion and extension of the fore-arm should be prevented. The elbow-joint should be perfectly fixed during the union of the bone.

It has been seen that the humerus is articulated to the scapula and bones of the fore-arm by the same kinds of joints that connect the femur to the pelvis and the tibia. Hence it will appear, that the points of difference, in the treatment of the fractures of these two bones, must be drawn from the difference in their form, and from the difference in their situation with respect to the trunk. If the inferior extremity were attached to the scapula instead of to the pelvis, the treatment of a fractured thigh would differ very little from the treatment of a fractured humerus.

In the treatment of a fractured humerus, the curative indications which require to be answered by mechanical means, are,

in my humble opinion, two :—1st, To fix the fore-arm and humerus at a right angle, so that any motion given to them may have its centre in the shoulder-joint ; 2d, To prevent the fragments, when once placed right, from being deranged by the involuntary action of the muscles, or by any accidental motion *passively* given to the limb below the fractured part. An apparatus, used for these purposes, should be so contrived as to admit of being easily adjusted, and so as to maintain the situation with respect to the limb in which it is first applied, without producing more pain or inconvenience to the patient than necessarily arises from the proper confinement of the parts.

As no contrivance, hitherto published, that I am acquainted with, can be made to answer these indications, I have invented an apparatus which appears to be calculated to answer all the purposes for which an apparatus is required, till the process of union is completed.

The apparatus to which I allude consists of three portions of beech, two of which are fixed together at a right angle ; and the other is straight, and of the length of the humerus. The two portions connected are long enough to reach from the head of the humerus to the wrist. They are about two inches wide, and are excavated to the depth of about a quarter of an inch. That portion destined to lie upon the upper arm has two straps attached to it transversely. Each of these straps is armed with a buckle, and is long enough to reach about three fourths round the arm. One of the straps is fixed to the splint close to the angle formed by the junction of the two portions of beech ; and the other a little below that part of the splint, which is made to lie by the side of the tendon of the pectoralis major ; and in such a way that the buckles lie upon the splint. Another strap is fixed to that part of the splint intended to lie upon the fore-arm, close to the angle formed by the junction of the two pieces of beech. Two studs are also placed upon this part of the splint, one in the middle and the other near its end, for the reception of straps destined to pass round the fore-arm. The other splint is of the same width as that last described, and of a length to reach from the head of the humerus to the lower end of the bone. This splint has two leathern straps furnished with buckles attached to it in a line transversely to the splint, and opposite to the straps fixed upon that part of the angular splint, which is destined to take the line of the humerus. Each of these straps should be sufficiently long to reach about three-fourths round the arm, and should be attached so as to be received by the buckles placed upon the angular splint. This splint is hollowed out about one-fourth of an inch at its upper part ; and the depth of

the excavation is gradually diminished to within two inches of the lower end, where the splint is left quite flat.

What I have above described constitutes the whole of the apparatus.* But, besides this apparatus, it is proper, in order to add as much as possible to the comforts of the patient, and to secure the fracture from every kind of derangement and motion, to make use of three other splints, which may be made of split deal in the common way. One of these should be long enough to reach from the arm-pit to the inner condyle, another from the point of the shoulder to the outer condyle, and the third from the elbow to the fingers.

Having now given a description of the apparatus, and mentioned the length and number of common splints I use with it, it remains for me to show the manner in which it is to be applied to the limb. This, in general, should not be done till the high inflammation produced by the injury is considerably got under, which is usually in about three or four days, more or less, according to the degree of injury of the soft parts; but if the bones ride, or if the patient is restless, it is proper to apply it lightly as soon as possible after the accident.

The Surgeon should place the fore-arm so as to form a right angle with the humerus, and then support the integuments, by means of a spiral bandage, as high as the fractured part. This part, being nicely adjusted, should be surrounded with strips of soap plaster, which should be drawn moderately tight. The Surgeon having pads properly made for each splint, should now commence the application of the apparatus, by placing the angular splint upon the fore-arm; and then the longest deal splint, with tape extending along its outer surface, in the ordinary way, should be placed beneath the fore-arm and hand. This splint and the angular splint should now be confined to the fore-arm by means of the proper straps attached to the latter. This being done, the fore-arm should be given to an assistant, who should keep it at a right angle with the humerus; and, if the fragments ride, he should be directed to draw down the fore-arm, while the Surgeon placed the upper part of the angular splint in a line with the biceps muscle, and adjusts the fractured part. The straight splint belonging to the apparatus being placed upon the back of the arm in a line with the humerus, the assistant should be directed to support this splint and the angular one in their proper situation, with the fractured bone between them. The Surgeon should then place a piece of common splint on the inner side of

* The same apparatus admits of being applied to adult arms of various lengths and sizes.

the arm, so that it may extend from the axilla in a line with the bone to the inner condyle ; and another on the outer side, extending from the point of the shoulder to the outer condyle.—The proper straps fixed to the apparatus should then be carried over the splints and buckled moderately tight. It is advisable to place an additional strap round the limb between these, as it assists in keeping the splints steadily and firmly together. The arm should now be placed in a sling extending from the elbow to the hand, and just short enough to steady the arm comfortably as it hangs by the side.

When the Surgeon wishes to examine the fracture, he may do it without disturbing the fragments in the least, by removing the splint placed along the outer side of the arm, while an assistant keeps the apparatus from shifting its situation.

By this plan of treatment the parts are kept quiet in their natural position ; and thus deformity is prevented, and nature is assisted in her efforts to consolidate the bone.

Here it might be asked, why are the splints not confined to the scapula in the same way as the apparatus for the lower extremity is confined to the pelvis, in the treatment of fractures of the thigh ? A little consideration, however, will make it appear, that though the humerus is articulated to the scapula by the same kind of joint as that which connects the thigh-bone to the pelvis, it is by no means necessary that the apparatus, described for fractures of the humerus, should be fixed to the scapula in the treatment of a fractured arm. The scapula is placed at a part of the body where it may be kept at rest without any inconvenience to the patient. The situation of the scapula, therefore, may be regarded as even more than sufficient to compensate for the loss of that support which the thigh receives in consequence of connecting the splints to the pelvis. Hence we may conclude, that any connexion of the splints to the scapula may be regarded as superfluous.

It now remains for me to substantiate the utility of the apparatus which I have endeavored to describe, by relating cases, for the cure of which it has been employed. In doing this I shall purposely refrain from mentioning any that have occurred in my private practice, as I have been kindly favored with more than sufficient for this purpose by the Surgeons of the Borough hospitals.

April 15th, 1822.—John Alefounder, ætatis twenty-nine, was admitted into Guy's Hospital, under Sir Astley Cooper, for the cure of a fractured humerus. The fracture was occasioned by a fall from a height of twenty-five feet. It was situated a little

below the insertion of the deltoid muscle, and extended through the bone in a direction slightly oblique.

I saw him the fourth day after the accident, and, at this time, the lower fragment was drawn up considerably, indicating the fracture to be of the loose kind. The fragments being placed in proper apposition, the apparatus was applied, and the man was directed to carry the arm in a sling. Three weeks after the accident the apparatus was taken off, and the bone was found straight and firmly united.

During the cure, I frequently moved the limb to shew the pupils the power which the apparatus possesses in holding the upper portion, so as to make it move simultaneously with the lower, when the limb is passively rolled upon the scapula. Whenever the arm was moved, as here mentioned, the head of the humerus could be as distinctly felt rolling upon the scapula as if the bone were entire. The man never felt pain in the fracture from the rotatory motion given to the limb, nor was the process of union retarded. These circumstances are sufficient to show, that the fractured surfaces remain at rest when the limb is passively moved upon the scapula by an impetus given to it below the situation of the injury.

Now, if this be granted, it can be of little consequence whether the impetus given to the limb be intentional or accidental, supposing it is passive, and not violently applied; for if the fractured surfaces are not disturbed in the one instance, it is not to be expected that they will be in the other: therefore we should infer, that the fracture is kept quiet at all times, when the whole limb is being gently and *passively* moved upon the scapula, provided that *no resistance* is made to the motions of the limb by the *voluntary action* of its muscles, and that the fracture is not so high up as to prevent the splints from holding the upper fragment firmly. Hence we should conclude, that the apparatus, by keeping the fracture quiet, favours a speedy consolidation of the fragments: and allowing this to be the case, the patient may reasonably expect the powers of the limb will be restored to him proportionably early; and as the pain occasioned by the derangement of the broken portions is avoided, as well as that which arises from repeated attempts to place them in their proper situation, the cure will be effected with much less inconvenience than he would experience under treatment by the common means. By this mode of treatment, too, the Surgeon will be spared from that painful anxiety which arises from the knowledge of the insecurity of the fracture, and from the consideration that his reputation would suffer from what it might not

have been in his power to prevent—the occurrence of deformity or non-union of the bone.

John Barret, ætatis sixty-three, was admitted into St. Thomas's Hospital November 11th, 1822. A few hours before his admission, he fell down four steps, and pitched upon his elbow in the stone yard. The force of the fall produced a fracture of the humerus, which commenced a little above the condyles, and extended very obliquely through the bone in a direction upward and outward. I saw him the fourth day after the accident.—He was then in bed, with his limb lying upon a pillow. The lower fragment was drawn up from two to three inches. The limb was much swollen, and the man was suffering greatly.—Short splints had been applied, but were found ineffectual in supporting the parts in their proper situation.

This man was under the care of Mr. Travers, who now politely offered me the treatment of the case. Assisted by his apprentice Mr. Dunkin, I applied the apparatus lightly, but, at the same time, sufficiently close to prevent the fractured ends from riding. Two days after the application of the apparatus, the straps were tightened, and the man was desired to leave his bed, and carry the arm in a sling. February 28th, 1823, the apparatus was taken off, and the bone was firmly united.

In this case it will be observed that nearly three months had elapsed before the consolidation of the bone was completed. I have selected it purposely to illustrate the effect of motion between the fractured surfaces, in retarding the progress of union, and to show the necessity of guarding against the voluntary action of the muscles.

This man was particularly dull of understanding, and could not be prevailed upon to keep the limb quiet. He frequently raised the arm by the action of the deltoid muscle, and thus caused the fractured surfaces to rub upon each other. He was frequently informed, that his omitting to comply with directions, in this particular, would retard his cure; but it was found he either did not comprehend or recollect the caution. The straps were therefore drawn closer, even to a degree which was painful to him; but crepitus was still produced by the voluntary action of the muscles, though none was felt when the limb was passively rolled upon the scapula. I felt convinced that union would not take place as long as motion was continued in the fracture: and, as reasoning was lost upon him, I bound the arm to the side, so as to deprive him of the possibility of raising it by the voluntary actions of the muscles; and, at the same time, shortened the sling, so as to keep the fractured parts closely ap-

plied to each other. After persevering in this plan for three weeks, I was happy to find that it had perfectly succeeded. The extreme points of the fractured ends could be felt when the fracture was united, and it was ascertained that the obliquity was above one inch and three quarters.

Sarah Cooke, ætatis sixty-two, much troubled with rheumatic gout, was admitted into St. Thomas's Hospital February 11th, 1823, under the care of Mr. Green. She had a transverse fracture of the humerus about mid-way between the insertion of the deltoid and the head of the bone, and a transverse fracture of olecranon. Neither of the fractures was attended with any considerable laceration of the soft parts. The fracture of the humerus was easily discovered by rotating the lower portion, while the upper was fixed; and the fracture of the olecranon was equally distinct; but as the periosteum was not torn, the fractured surfaces were not separated from each other. Both the fractures were attended with great tumefaction in the affected parts, which was removed by rest in the horizontal position, and cooling lotions to the limb.

February 21st, I saw her with Mr. Green, who kindly offered me the superintendence of the case. The apparatus was now applied, by his dresser Mr. Thompson, and she was directed to leave her bed, and carry her arm in a sling. March 23d, the apparatus was taken off and the humerus was found united, and also the olecranon, by the interposition of bony matter.—The callus which joined the olecranon could be distinctly felt through the integuments.

This case is interesting, inasmuch as it shows that her habitual disease, which had greatly enlarged the joints of her fingers, &c. and limited their motion, did not interfere with the process of union in the fracture; and that the apparatus is applicable in cases which are complicated with fracture of the olecranon, when the periosteum remains untorn.

Several other cases of fracture of the humerus have been treated with the apparatus above described, in Guy's and St. Thomas's Hospitals, but the limits of this paper will not allow of their insertion.

II.

1. *Cases of Neuralgia Spasmodica, commonly called Tic Douloureux, successfully treated.* By BENJAMIN HUTCHINSON, Fellow of the Royal College of Surgeons.

2. *A History of a severe Case of Neuralgia, &c. successfully treated.* By G. D. YEATS, M. D. F. R. S.
3. *Observations on Neuralgia.* By SHIRLEY PALMER, M. D.

(From the Medico-Chirurgical Review.)

THE great number of cases of this dreadful disease which have been published of late years, proves that the complaint is on the increase, along with the host of other nervous affections. The general spread of intellectual excitement among all classes of society, in modern times, must deteriorate the grosser functions of the body—and this deterioration inevitably reacts on the nervous system with a severe retaliation. What has been termed neuralgia, or tic douloureux, arises, we are convinced, from different causes in different individuals. It may depend on an inflammatory condition of the neurilema, as has indeed been proved, both by dissection and by the modes of treatment that were successful. It may depend on organic diseases in the brain, where the origins of the nerves are pressed upon. Or, as is more commonly the case, it may arise from sympathetic irritation of an internal organ, of a nervous expansion, as that of the inner surface of the stomach or intestines, at a great distance from the seat of the actual pain. It is evident, that the treatment must be modified by this variety in the etiology of the complaint, and that no one specific can ever be expected for the different species of the disease. In that variety of neuralgia originating in gastric or intestinal irritation, tonics have proved the most efficient remedies, combined with, or rather preceded by evacuations and alteratives. Thus, in two or three of M. Vaidy's cases, (see page 749, vol. i.) cinchona arrested the paroxysms.—In other cases, however, (as case 7,) where the patient was young, and the pain in the left leg, along the external cutaneous nerve, most excruciating, thirty leeches applied in the track of the nerve, removed the disease at once. In the very remarkable case of tic douloureux of the ankle, related at page 354 of the second volume of our *Quarterly Series*, for January, 1820, alterative aperients, and, subsequently, the oxyde of bismuth, taken for a considerable time, effected a cure, or at least, rendered the complaint of trifling inconvenience. We think the rationale of the tonic plan, where the disease depends on morbid irritability and irritation in the intestinal canal, is not very difficult to understand—at least, where the mind is not imbued with the modern mania of medical scepticism. We have now, indeed, a very plentiful growth of medical philosophers, whose doubts and difficulties respecting the most common phenomena, and the most obvious trains of causes and effects, must render them, at

the bed-side of sickness, as perplexed as the ass between two bundles of hay ! We have had a few opportunities of coming in contact with some of these *exquisites* of the profession, who are prone to "cut blocks with a razor," or mystify every thing relating to pathology and practice ; and, we must say, that their scepticism and hair-breath discriminations led them into the most puerile, absurd, or vascillating practice, (if practice it could be called,) which we ever beheld. That great uncertainty does and ever will prevail in medicine, must be admitted and deplored ; but if the absence of *demonstrative proof* in every thing before us, leads us to a want of promptitude in acting on what is *highly probable*, then the practice of medicine will become a tissue of imbecility. We shall, indeed, become "too fond of the right to pursue the expedient," and allow quacks and ignorant pretenders to seize the obvious indications before their eyes, while we are doubting, disputing, and addling our brains with medical logic that, after all, leads but to conclusions in which nothing is concluded. The good practitioner should observe accurately, deliberate maturely, but act decisively on the most *probable* indication before him, without hesitating, or embarrassing himself with the thousand *possibilities* of the case, that may or may not occur.

We shall now take a short review of the history and treatment of this terrible disease, availing ourselves freely of an excellent paper drawn up by a former colleague, (Dr. Palmer,) but unfortunately consigned to a journal which had no circulation, and where, consequently, it has remained unknown. We shall here rescue it from unmerited oblivion.

This obscure and distressing disease has received various appellations, but none, we think, so appropriate as NEURALGIA, first applied in France, and first introduced into this country by Dr. Palmer. It is that which is now generally used by the best writers. It shews the necessity which exists, and ever will exist, for new and more appropriate designations, as we advance in knowledge. By Fothergill, who first described the disease, it was termed, "*Faciei morbus nervorum excrucians*,"—by Sauvages, "*tic douloureux*"—by Darwin, "*hemicrania idiopathica*." Although it more frequently affects the three grand divisions of the fifth, and facial portion of the seventh pair of nerves, yet multiplied observations have now proved, that it may assail various other nerves, cerebral, spinal, and, perhaps, ganglionic.—Where it is confined to the fifth or seventh pair, *neuralgia facialis* appears a very proper designation.

The scalpel, from utter inefficacy of other local and constitutional treatment, has been often resorted to ; yet, this constitutes

at best, but an unpleasant and precarious operation—at one time rendered abortive from the number or situation of the affected nerves—unavailing at another, from defect of anatomical knowledge*—and always disfiguring, more or less, the person operated on.

Where *pain* is a prominent feature in any complaint, we naturally look to the class of anodyne medicines for relief: accordingly OPIUM has been largely exhibited in neuralgia, but with little permanently beneficial influence. In fact, by constipating the bowels, and otherwise deranging the digestive functions, it would appear to be ultimately injurious, rather than sanative. This position is well exemplified in the unfortunate fourth history of neuralgia, related by Dr. Pearson, where tincture of opium, to the amount of 600 drops, in seven hours, scarcely procured a transient relief. In the cases related by Dr's. Darwin, Palmer, and Mr. M'Kecknie, opium had no salutary effect.—Mercury has sometimes succeeded, but oftener failed, in this deplorable disease. In Dr. Pearson's first case, (Ed. Journal for July, 1807,) the disease eventually yielded to the mercurial influence, but not until after a singularly obstinate resistance—the recovery, after all, being slow and imperfect. In the histories recorded by Dr. Darwin and Mr. M'Kecknie, no apparent good resulted from the mercury. But where a combination of mercury and opium was employed, the prospect was somewhat brighter. Dr. Pearson's second case, and those detailed by Drs. Corkindale and Palmer, present illustrations of the beneficial effects of this combination. It is curious, but it accords with our own observations, that the combination of opium and submuriate taken internally, is far preferable to mercury rubbed on the skin, and opium taken by the mouth. This was conspicuous in Dr. Pearson's and the other cases.

Arsenic. From the striking features of analogy observed to subsist between neuralgia and certain forms of chronic rheumatism—and, also, from the periodicity of its attacks, arsenic has been frequently employed, but not with much success. In Dr. Pearson's fourth case, its exhibition proved injurious? in the fifth, unavailing; in Dr. Darwin's patient, useless. In the case detailed by Mr. M'Kecknie, arsenic was prescribed with great and permanent benefit. It should be borne in mind, however,

* If proof of this assertion were wanting, we need only refer to a case of neuralgia recorded by Dr. Darwin, in which the surgeon "made an incision so as to divide the artery near the centre of the ear, next to the cheek, hoping to divide a branch of the affected nerve, but without success." What nerve could he hope to cut by an incision thus directed?

that mercury had been *previously* administered to the point of salivation. Mr. Hill also speaks favourably of arsenic in neuralgic affections,* but cites no case in support of the assertion.

Cinchona, has been tried in several cases. Dr. Clark, of Nottingham, prescribed it largely, and it suspended the paroxysms for some months, but they eventually returned, with greater violence than ever. In Dr. Darwin's patient this remedy completely failed. Of Mr. Swan's observations on this remedy, and on tic douloureux in general, we have given an ample account in the second volume of this series, p. 63, *et seq.* to which we refer also for Dr. Kerrison's sentiments on the same remedy and disease. They both speak highly of the cinchona.

Dr. Palmer exhibited the bark with much advantage when the system had been worn down by protracted suffering, confinement, and a long course of mercury. It is under such circumstances, he thinks, the cinchona is principally indicated.

Belladonna. In the year 1818, Mr. Bailey, of Harwich, drew the attention of practitioners to the use of belladonna in neuralgic affections, and relates thirty cases wherein the medicine was more or less successful. He recommends the extract and tincture of the herb, as prepared by Mr. Corbyn, and details many cases of neuralgia facialis, where it was more or less beneficial. Of the tincture, he exhibits from twenty to thirty minims for a dose, in any convenient vehicle, augmenting or diminishing it according to its effects, and repeating it with the frequency required by the degree of uneasiness. Of the extract, he begins with three grains, and repeats the medicine in diminished doses, until relief be procured.

Mr. Bailey considers tic douloureux as a *local* disease, having "its origin in the diseased state of the membranes, lining the cavities of the molar teeth." Some others of the profession have reported favourably of this medicine; but, we fear, that it has either not been sufficiently tried, or not been found to answer the expectations of Mr. Bailey.

Among the internal remedies which have been employed against this severe affliction, we should not pass over the plan of Abernethy—alteratives and low diet. This has, unquestionably, in several instances, given great relief, and in a few, we believe, effected a cure; but, still, it was far from being even generally successful. Before coming to the latest remedy—the remedy of the day (carbonate of iron) we may just glance at the princi-

* Ed. Journal, vol. vi. p. 57.

pal *external* applications which have been tried in mitigation or removal of this painful malady.

Leeches, especially on the Continent, have been the most successful topical application : and where the disease depends on an inflammatory affection of the nerve or its neurilema, as we believe it often does, we can have no difficulty in accounting for the success of local bleeding. Where the disease, on the other hand, has for its cause a constitutional derangement (as no doubt it often has) or a morbid sensibility of the nervous system generally, then local bleeding can do little good—nay, it may do positive harm, as appeared to happen in Dr. Yeats's case to be presently noticed. The same observations apply to blisters and other exutories. In the *gazette de Sante*, for September 1816, Dr. Barras relates a case of neuralgia of the spermatic cord cured by moxa. In this case a periodic but violent hemicrania had been cured five years previously by a blister to the nucha. The same patient afterwards became affected with teasing and lancinating pains in the left epididymis and spermatic cord, inducing at length, considerable testicular inflammation, which was subdued by the usual means. Thenceforth the pain was uninterrupted, but variable in severity. In the worst paroxysms, the pain radiated to the nates, the left thigh and leg, in the course of the vas deferens, and to the bladder and urethra, inducing frequent desire to void urine, with a scalding in passing it.—Leeches, poultices, anodynes, and a caustic issue, gave no relief. Under these circumstances, moxa was applied on the pained part, which partly removed the pain. Another application was made fifteen days afterwards, which effected a cure.

In Mr. Beddingfield's "*Compendium of Medical Practice*," published in the year 1816, there is related a case of *tic douloureux*, cured by the application of cerussa, so as to paralyze the nerve affected. This was under the direction of Sir Astley Cooper, in a case which had resisted every other remedy, including the knife. Two scruples of the carbonate of lead were formed into an ointment, and rubbed in the morning on the affected cheek, about an hour before the paroxysm was expected. This application was continued for a month or more, and the man left the hospital cured. The effect of the lead is represented as rapid and striking, the patient being rendered comparatively comfortable in a short time, from a state of excruciating torments. The lead produced no particular effect on the bowels or general system.

Carbonate of Iron. About two years ago, Mr. Hutchinson, of Southwell, published a small pamphlet containing six cases of *tic douloureux*, cured or relieved by carbonate of iron, taken

in large doses. Of these cases we gave an account in the first volume of the present series, p. 111, *et seq.* A second edition of this work has just appeared, containing a considerable number of communications from medical practitioners in various parts of the kingdom, bearing testimony, more or less, in favour of the remedy under review. We were a little disappointed, to find that Mr. Hutchinson has published only three or four *additional cases of his own*, in this second edition, (and some of them not of the most satisfactory kind,) though he states, that more than two hundred cases have come under his care since the first edition of his work. We do not think the excuse which he offers is a good one—namely, the fear of swelling out his book. We imagine that the pages of a medical work, could scarcely be better employed, than in recording authentic cases of tic douloureux, especially where a new remedy, of such pretensions as the carbonate of iron, was on trial. We do think that, it is incumbent on Mr. Hutchinson to give these cases, or an abstract of them, to the public, through some medium or other; and to state the unsuccessful, as well as the successful issues of all. We shall now proceed to lay before our readers brief abstracts of the additional facts contained in the volume under review.

Case 1. This case was transmitted to Mr. Hutchinson by an eminent physician in London. A Baronet experienced a first attack of tic douloureux four years ago, and has since suffered four or five paroxysms daily, particularly when washing his face, or eating. The patient was dyspeptic, leucophlegmatic, and of languid circulation. He had tried a variety of remedies. From Mr. Abernethy's plan he had derived, at one time, essential benefit. "When at the sea-side, he has been entirely free from the complaint." Being in great pain from the disease, he began the carbonate of iron, as recommended by Mr. Hutchinson, and felt relief in two or three days. In ten days, he was not only free from pain, but greatly improved in health. He has lately experienced some very slight attacks; and when the premonitory symptoms occur, he has recourse to the same remedy, which speedily removes them.

Case 2. (Communicated by Mr. Richmond, of Grimsby, in Lincolnshire.) Mrs. Vicars, a delicate woman, 30 years of age, suffered for four years with "severe and acute pain along that branch of the fifth pair of nerves, passing to the maxilla inferior, and particularly affecting the mental nerve." This pain was periodical. She had received an injury on that side of the jaw eleven years before. Various means had been used with little success. A drachm of the carbonate of iron was ordered

to be taken three times a day, and on finishing twenty-four powders, she expressed very great amendment," but the iron had produced salivation, (an effect which it frequently has, according to Mr. Hutchinson's experience.) She persevered, however, and a perfect restoration of health was the consequence.—Mr. Richmond, in a eulogy on his revered tutor, Mr. Abernethy, expresses his conviction, that this was a local disease from disordered digestion.

Case 3. Dr. Carter, physician to the Kent and Canterbury Hospital, has communicated the following case to our author. A man, 58 years of age, who had led an intemperate life, was seized in the middle of October, 1820, with a violent pain, commencing at the upper jaw, and extending, in a short time, over the whole of the left side of the face to the temple. A molaris was removed, but no relief followed. Two more teeth were extracted, but the pain became severer than ever. No means gave permanent, and opium only transient, relief. When he presented himself at the hospital, he was in a state of general debility, pulse feeble, tongue foul, bowels constipated. Decoction of bark, with ammoniated tincture of guaicacum every three hours—Dover's powder at bed-time. Three weeks perseverance in this plan produced evident benefit to the general health, but no mitigation of the neuralgia. The carbonate of iron (a scruple every three hours, made into an electuary) was prescribed. In ten days the patient was free from pain, his appearance much improved, and only a numbness of the side of the face remaining. He was ordered to take decoction of bark and aromatic confection to secure against relapse. He continues perfectly well.

Case 4. This, and the succeeding case fell under the inspection of Mr. Hutchinson himself.—Mr. Todd, a farmer of Faunfield, 26 years of age, began to have uneasy sensations in the left side of his face about 18 months ago, the pain extending to the ala nasi, upper lip, superior bicuspid teeth, temple, and lip. The infra orbital nerve and its ramifications appeared to be the seat of the disease, which came on in irregular paroxysms, sometimes mild, sometimes violent, but without any assignable cause. Three molares had been extracted under the idea that the disease originated from them, but without effect. Mr. H. prescribed the carbonate of iron in doses of a drachm three times a day, directing, at the same time, an ointment composed of tartrate of antimony, powdered opium, camphor, and mercurial ointment—one drachm of which was rubbed on the cheek every evening, until a plentiful crop of pustules appeared. It was then suspended, and renewed again when the pustules dried

off. This plan was persevered in for three weeks, with very little effect. The medicine now began to produce uneasy sensations in the bowels, which were removed by combining *confectio aromatica* with the carbonate. During the next six weeks the patient continued gradually gaining ground, "and is now perfectly well."

Case 5. Thomas Neep, residing in Southwell, 55 years of age, of scrophulous diathesis and of former intemperate habits, had been subject to *tic douloureux* during the last ten years.—The facial pain was preceded by, and accompanied with giddiness, torpor and other symptoms of determination to the head, which were properly treated by local and general depletion, but without any diminution of the neuralgia.

"The paroxysms generally begun in the upper gums, extending upwards under the eye, diverging towards the *ala nasi*, and the whole of the right side of the face. The pain was not of the continued, obtuse kind, like that of chronic rheumatism, but, on the contrary, rather transient, exceedingly acute and lancinating during its attack. The periods of its recurrence were indefinite, in the intervals of which he was in tolerable ease. There was some uniformity in the direction and origin of the pain: it always began in the gums and upper lip, and darted upwards towards the orbit: the same sensations were also observed on the bony and fleshy palates, on the gums and teeth of the upper jaw, and sometimes on the fauces."

Nine sound teeth had been extracted at different times, without producing any change for the better; and the same was the result of various internal and external remedies. In the month of March last he came under our author's care, and began to take a drachm of the carbonate of iron twice a day mixed in honey, and to make use of the emetic tartar ointment, with camphor and powdered opium applied to the face every night. Five weeks careful perseverance in this plan brought some slight alleviation; but the medicine produced considerable diarrhœa, which, however, was checked by a few drops of the *tinct. opii*. His torments, though mitigated, were still almost insufferable, and therefore the carbonate of iron was increased to four scruples three times a day, in which quantity he persevered for two months, when the violence of the disease began evidently to yield; and after a perseverance in this increased dose for three months, his pains left him. He was seen, "this day, August 28," (this must have been 1821,) when he declared his comforts and his feelings to be "too great for description." Nevertheless the patient, at times, had "slight sensations reminding him of his past sufferings."

Three months after the date of the above report, the patient having been exposed to great vicissitudes and inclemencies of weather, a recurrence of the disease took place, (though not to the same extent as before) and our author could not prevail on him to resume the remedy. He is therefore still suffering at times from his old enemy.

Case 6. Mr. Jeffrey Dennis (author of a plan for bettering the condition of seafaring people) writes to Mr. Hutchinson that, having been afflicted with tooth-ache, in the year 1798, he had the tooth broken, and from that time dates the commencement of tic douloureux. Having continued nearly two years, it then disappeared for some years. In 1817, when Mr. Dennis was very busy in planning for the relief of our sailors, his horrible enemy assailed him, and resisted every remedy, till Mr. Hutchinson's pamphlet fell in his way, when he began the carbonate of iron, taking two drachms and two scruples twice a day, from the 26th January, till the 23d July, when he "experienced a complete removal of his agonies." He took it in honey, and made use of opening pills and Epsom salts occasionally to obviate costiveness.

Case 7. This was a young lady residing at Mansfield, who had been afflicted with a painful affection of the left side since October, 1818, and which had been gradually increasing in violence for some months. The disease was accompanied with great debility, loss of appetite and sleep, and so great was the dread of the painful side being touched, that she could scarcely bear to be moved in bed. She had consulted the first physicians in England, but with little relief. When she applied to our author, she was suffering the most excruciating pain in her left side, with considerable uneasiness in the right hypochondrium. The pulse was 100, and the debility excessive. "The cutaneous and intercostal nerves appeared to be the principal seat of this truly painful and melancholy affection." The lady commenced the carbonate of iron in the month of November, 1820, and continued it, with some few modifications, until the complaint entirely left her, in the February following. She continued the medicine, however, for some months longer, and up till the present time at intervals.

Case 8. Communicated by Mr. Richmond of Grimsby. Mr. Overton, a stout man, turned of 60 years, had suffered severely from repeated attacks of dyspepsia, and general derangement of the digestive organs. About two years ago he began to be affected with an intermitting pain along the inferior maxillary nerve, which gradually increased till it became almost insupportable.

" Mr. Richmond witnessed several paroxysms of pain which produced the greatest agony and distraction, obliging Mr. Overton to run up and down the house with his hands to his mouth, exclaiming violently during the fits, which were very uncertain both in their duration and the succeeding interval, and equally sudden in their accession and departure. In a moment he would exclaim, " Oh ! it's come, or, Oh ! there, it's gone : " he then would continue easy for a longer or shorter period. The torment would continue sometimes five minutes, sometimes ten, or even longer."

Mr. Richmond gave the patient the carbonate of iron, agreeably to Mr. Hutchinson's plan, " and in ten days he was wholly free from pain, and has now continued exempt from all complaint for more than two months, except that last week he felt a particular cold sensation in his gums, which induced him to send for a repetition of his medicine ; there has not, however, been the least return of pain."

Case 9. Dr. Alderson, of Hull, communicates a case of neuralgia situated in the female mammæ. The patient was a corpulent woman, 51 years of age, and past menstruation. Her breasts were so morbidly sensible that the action of passing the hand over them gave exquisite pain, and caused an expression of countenance characterizing *tic douloureux*. There was no alteration of structure. The carbonate of iron was prescribed, and in a fortnight removed the mammary pain. It returned in a month, and again the medicine (which Dr. A. thinks is as necessary to the patient as her bread,) was resumed. " She has perfectly recovered her former health."

Case 10. Is from Dr. Marshall Hall, of Nottingham. The patient was a school-mistress, 58 years of age, who became affected seven years ago with " excruciating pain pursuing the course of the cutaneous nerves, down the outside of the thigh and leg to the sole of the foot." The pain becoming so constant and severe, the patient was obliged to relinquish her school. The operation of dividing the nerves, and all kinds of internal medicine failed. Four months ago, she began to take half a drachm of the carbonate of iron twice a day, which she had persevered in up to the present day—December, 1821. In about six weeks there was some very trifling mitigation of the pain ; but it gradually, though almost imperceptibly, yielded to the powers of the iron. The patient's general health improved, her bowels kept regular, and her strength and flesh returned. She has now resumed her scholastic labours.

Case 11. This is detailed by the patient himself, Ludovic Houston, Esq. of Johnstone Castle, near Paisley. For five

years this gentleman laboured under a nearly constant headache, which had been treated as rheumatic, bilious, or nervous, according to the views of the practitioner. We shall give the following sketch of the complaint in the patient's own words :

"The headache is confined entirely to the forehead, chiefly seated above the right eye, sometimes the whole of my forehead is affected, and the pain will occasionally remove suddenly to the left temple. I have every day a violent throbbing in both temples, and the pain is sometimes entirely confined to a tooth in the upper jaw, and extending to the nose. The painful sensation is seldom very acute ; it continues sometimes the whole day, at others an hour or two, and when the teeth and nose are affected, it seldom lasts more than half an hour, and at times only a few minutes. My digestive organs have all along been very much out of order, and for the last three months, I have taken purgative medicines and mercury to a great extent.— There is a peculiarity attending my evacuations, to which I wish very particularly to call your attention. I have voided every day during the above period, immense quantities of slimy stringy mucus, varying from very dark to light colour, and sometimes very black and fœtid. I have generally three evacuations every day, composed entirely of this morbid mucus, and notwithstanding the long continuance of the purgatives, never having omitted them for a day, there is still very little diminution of this excretion."

Various remedies were tried, as galvanism, arsenic, cinchona, blisters, local bleeding, and purgatives. The latter class had some good effect. Mr. Hutchinson prescribed a drachm of the carbonate of iron three times a day, accompanied with a tonic mixture of decoct. cinchonæ cum extracto ejusdem. A pill was ordered at bed-time, containing a grain of extr. stramonii, two grains of sulphate of zinc, and three of rhubarb ;—the bowels to be kept open by the decoct. aloes ;—diet to be nutritious, and some wine to be allowed. From this plan decided benefit was obtained in two months. In the course of six or eight weeks longer the enemy rallied, but with not quite such force as before. The disease has not been eradicated, but the remedy " keeps within very tolerable bounds this foe to his former peace and happiness."

Case 12. This who was a patient of Dr. Payne's, (Physician to the General Hospital, near Nottingham) was cured very rapidly of neuralgia faciei, by large doses of the carbonate of iron. He relapsed, and was again relieved from the attacks of the disease by the same remedy.

Cases 13, 14. Next follow two cases which happened in the

practice of Mr. Cass, a very respectable surgeon of Leeds, communicated by Mr. Hey, of the same town. The first case was that of a female, 54 years of age, who was attacked with tic douloureux on the right side of the face, which resisted the usual plans of treatment. Mr. C. put her on a course of carbonate of iron—half a drachm every four hours, night and day, which was gradually increased till she took a drachm at each dose.—No sensible effect resulted during the first fortnight; but afterwards the paroxysms became less violent, and at longer intervals. By a perseverance in the remedy for four or five months the disease was eradicated, and has not since returned.

Case 15. Dr. Marsden, of the Nottingham Hospital, has stated a case that occurred in his practice. The patient was a married woman, who had, for some time, laboured under great pain in the course of the left sciatic nerve, which, at length, confined her to her bed. Her strength and flesh were much reduced—pulse, bowels, and catamenia regular, appetite bad. Our author put the woman on a course of carbonate of iron—two scruples thrice a day till the complaint left her, which was in a fortnight or three weeks.

Dr. Ayre, of Hull, has had three well-marked cases of tic douloureux, in which, success was obtained by the carbonate of iron, exhibited in the manner already so often described. A case is also transmitted to our author, by Mr. R. S. Hutchinson, dresser at Guy's Hospital, where a man was cured of tic douloureux by the remedy under consideration. Sir Astley Cooper informs Mr. Hutchinson that, in the few cases in which he had an opportunity of trying the carbonate of iron in tic douloureux, he had observed the benign influence of the medicine over the complaint.

We now come to Dr. Yeat's pamphlet, in which is given a very minute detail of a most painful neuralgic affection, which occurred, we believe, in the person of Mrs. Yeats. This lady awoke, on the morning of March 7th, 1822, with a feeling of uneasiness on the outer ankle, and a little up the calf of the right leg, resembling a cramp, with a numbness of the great toe.—During the day, the pain increased, the numbness extending from the toe across the instep. By the evening, the pain had reached the knee, and the whole of that night was passed in much pain. 8th. Fourteen leeches were applied in the line of the pain; but they brought no relief. By the evening, the pain had stretched up the thigh in the line of the sciatic nerve. On this, and also on the preceding night, she had taken four grains of blue pill, followed up the succeeding mornings by a saline aperient. 9th. A blister applied; but the pain still continued

to increase, and prove very violent in paroxysms. As the abdominal secretions were evidently deranged, some mercurial medicine, with hyoscyamus and antimonial powder were given every night. On the 12th, the gums were a little affected, but no diminution of the pain was perceptible. The bowels were easily excited, and very sensible ;—*the mildest medicine operating and producing pain.* “Their nervous coat had evidently acquired a great morbid sensibility.” This, indeed, seemed the case with the sentient extremities of the nerves pretty generally. On the 14th, Sir Henry Halford met Dr. Yeats, and they agreed, that the “disease was a pure affection of the nerves of the leg and thigh, unaccompanied by any morbid state of the muscular and tendinous parts.” The pulse was not hurried by any febrile movement, even under the most acute suffering—in general, it was from 56 to 62 in the minute, and soft. It was agreed to keep the bowels open by mild medicine, and lull the pain by narcotics. Little or no relief followed a gentle anodyne diaphoretic ;—and the same was the case after considerable doses of hyoscyamus, conium, and pulv. ipecac. comp. Mr. Brodie opened the vena saphena, but very little blood was obtained. The patient, however, thought herself better afterwards. But, still, after this, the returns of pain were frightful. About the 20th March, colchicum was tried ; but it irritated the bowels, and produced no good. On the 24th March, the cinchona was commenced, combined with a small quantity of laudanum, and this medicine was continued till the 3d of April, “with decided relief to the pain, and by the acquirement of more comfortable feelings of general health ;” but, still, the pain and distress were, at times, so excessive, that it was necessary to give large doses of of laudanum, such as 20 drops every six hours. On the 1st and 2d of April she took considerably more than this. The disease having now lasted a month, without any prospect of recovery, it was determined to have recourse to steel, in the manner recommended by Mr. Hutchinson. The subcarbonate, therefore, in half drachm doses, was commenced on the 3d April, and was continued in modified quantities, till the 14th, with considerable mitigation of the pain. At this period, the catamenia recurred, and produced an aggravation, which, however, was but temporary. After this, the medicine was prescribed in the following form, which agreed, far better, with the patient’s stomach and bowels :—Pulv. ferri subcarb. 3ss.—p. rad. rhei—p. zingib. ana, gr. ij. ft. pulvis. This was followed by a cordial draught, composed of infus. caryophyll. 3x. sp. ammon. aromat. 3ss. “The happiest effects followed this mode of exhibiting the steel ; no more laudanum was taken ; the pain

began so far to subside, and the paroxysms not to be brought on by pressure, that she slept very well at night; she sat at table at her meals, and was able to resume her domestic functions, with only a reminiscence, by some aching in the limb, that she had had disease there."

"It appears to me," says Dr. Yeats, "to be undoubted, from a review of the case, that the patient is greatly indebted to the Subcarbonas Ferri for her release from this painful complaint, and it is of great importance in the consideration that the sensations of the patient are entirely in its favour. It seemed to have a direct and speedy effect upon the nerves in soothing them by its impression upon the stomach, notwithstanding the large dose in which it was given."

For many interesting observations on neuralgia, and, also, some cases of the disease, which occurred in Dr. Yeats's own practice, we must refer to the work itself.

The length to which this paper has already extended, must render our concluding observations more brief than we originally intended them to be. From all that we have seen and read on the subject, we are inclined to view neuralgia as, in far the greater number of cases, "*a local affection possessing a constitutional origin*;"* or at least intimately connected with a disturbance of the system. Mr. Abernethy states his belief "that this disorder is as much constitutional as either gout or rheumatism." The numerous instances now on record, (and, indeed, the facts collected in this article alone,) of the complete and permanent removal of the malady by *internal* remedies, constitute a mass of evidence clearly indicating the constitutional origin of neuralgia. At the same time, we need hardly state that, from this definition, all those forms of the affection, arising from the infliction of external violence, must be obviously excluded. Viewing tic douloureux in this light then, is it, or can it be, ever advisable to divide the nerve? At first sight, it might appear preposterous to have recourse to a surgical operation, if the origin or cause of the disease be constitutional, or, at least, at a distance from the seat of pain. But on a little reflection, it will be remembered that, in organic, as well as inorganized bodies, an effect is frequently seen to become independent, and survive the destruction of its parent cause.† When, therefore, we find the local af-

* Dr. Palmer's Definition. New Med. and Phys. Journal, Vol. IX. p. 177.

† "It will not be overlooked, that it is an object of the highest importance, in all these distressing situations, to endeavour to ascertain any cause that may exist in some distant part, as the fountain of the painful symptoms, and to adopt every feasible method for its removal; but when this is apparently

fection continue unimpaired, when the constitutional disorder, from which it arose, has been removed, we think there would be just grounds for having recourse to division of the nerve. Again, when the local disease becomes unsupportable, from the intensity of the pain, or other attendant phenomena ; or, if it appears to react so much on the constitution, as to frustrate the operation of internal remedies, would it not be allowable to obtain by the knife, a truce with the urgent local symptoms, while advantage is taken of the remission to attack the primary disease ?

From a review of all the cases hitherto recorded of this painful disease, it appears, that more than three fourths of the patients manifested a deranged state of the digestive organs ; and, we conceive, that the salutary operation of all the most successful remedies, (excepting the narcotics,) consisted in restoring these organs to a better state, and correcting their depraved secretions. We think, however, that the cinchona, and the steel, may owe a great deal of their success in tic douloureux, to their tonic effects on the whole system, by which the morbid sensibility of the nerves, in general, is lessened ; and, particularly, the nerves of the chylopoietic apparatus. We apprehend then that, where there is no evidence of local injury, the most rational and successful mode of treatment will be found to consist in evacuations from the stomach and bowels—alteratives—tonics—and anodynes. Of the class of tonics, we think the carbonate of iron seems, from the experience yet acquired, to be the most powerful and successful in tic douloureux, and, therefore, we have no hesitation in saying, that the profession, and society at large, are under deep obligations to Mr. Hutchinson for its introduction as a remedial agent in so direful a malady.

done, complete success is not found uniformly to follow, *for the primary cause of all the original evil may be removed, and still, from new circumstances, habits, &c. the effects remain to keep up extensive pain and mischief.*"—Mr. Hill, on Tic Douloureux, Edinburgh Medical and Surgical Journal, vol. vi. p. 57.

MONTHLY SUMMARY OF PRACTICAL MEDICINE.

I. ANATOMY AND PHYSIOLOGY.

DR. DUCHATEAU's Case of Umbilical Tumor.

Dr. Duchateau was called to examine a new-born male child, in consequence of the alarm of the midwife at perceiving a large tumor in the umbilical region. It was regularly spherical in shape, and so transparent, that the parts it contained were distinctly seen through its parietes : part of the liver, ileum, and mesentery, were thus distinguished ; the pulsation of some of the arteries, and the peristaltic motion of the intestines, being likewise perceptible. The tumor measured four inches from above downwards, and three and a half inches in breadth. Care was taken to prevent any injury from friction or compression, and the infant lived eight days.

This case bears considerable analogy to one communicated by BRESCHET to the Academy of Medicine ; at the same time it differs in this, that in the latter the tumor was formed by the lesion and separation of the abdominal parietes, while in Duchateau's it appeared to be formed by the extreme dilatation of the naval-string, just before it arrived at the umbilicus. This phenomenon occurred so long ago as 1784, at the time when the celebrated Pilate des Roziers was attracting the wonder of France with his balloons, and, as the mother had gone to Versailles, at an early period of pregnancy, to witness one of his ascents, a ready explanation of this monstrosity was afforded, and received such general credit among the gossips of the day, that the Baron de Breuille, then prime minister, was obliged to interfere to prevent the propagation of human balloons.—*Med. and Phys. Journal.*

II. SURGERY AND MIDWIFERY.

M. LALLEMAND's case of excision of the lower jaw.

An interesting case of amputation of the lower jaw has been detailed by Professor LALLEMAND, of Montpellier. The patient, a robust man, aged sixty-eight, was received into the hospital St. Eloy on the 23d of May, 1822. Nearly the whole of

the inferior lip, from one commissure to the other, extending downwards to the lower margin of the chin, was in a state of cancerous ulceration, in which disease the periosteum and bone itself appeared to participate. M. Lallemand commenced the operation, to which the patient had consented, with two semi-elliptical incisions, commencing in the superior lip, about five or six lines from the commissure, and terminating towards the middle of the thyroid cartilage: the incisions were very convex above, and nearly straight below the chin. Having found the periosteum and bone affected, the former being engorged, thickened, and lardaceous, M. L. abandoned the idea of attempting to preserve the lower jaw. He dissected the cheek on each side to the anterior margin of the masseters. In this situation the periosteum seemed perfectly sound; and here he sawed through the jaw, commencing with the left side, a little obliquely from without to within, and from behind forwards; he then detached the muscles and soft parts on the internal aspect of the jaw, and sawed through the right side in the same direction. The labial, sub-maxillary, and ranine arteries were successively tied, and some other branches that occasioned slight hæmorrhage. He afterwards brought together the inferior angle of the wound by means of three pins and the twisted suture, and approximated the branches of the jaw, with the soft parts covering them, by adhesive straps, after having placed charpie in the interval which separated them. The whole was secured by compresses and a few turns of a bandage. After several untoward circumstances, and fifty days after the operation, the whole of the wound was perfectly cicatrized. At that time an interval of nearly two inches existed between both ends of the jaw, allowing the passage of the tongue, and causing a dribbling of the saliva; for this latter evil M. Lallemand contrived a silver chin, holding a sponge on its concave surface, which could be readily secured by straps passing back over the neck. By aid of this sponge the saliva was absorbed, and afterwards pressed out by the tongue or by any other means, and articulation, which was before indistinct, was rendered more complete by this contrivance.—*Lond. Med. Repository.*

III. PATHOLOGY AND THERAPEUTICS.

Dr. COPLAND on the Pathology of Diabetes.

It may, perhaps, surprise our readers that we should remove a disease, which has been usually considered to have its seat in

the kidneys, to the digestive organs. But we are induced to take this view of its nature, 1st, because the kidneys betray no signs of disorder on dissection, that can in any measure, contribute towards the explanation of its phenomena ; and, 2dly, the various symptoms essential to and accompanying the disease cannot be explained after so confined a view of its pathology.— Without, however, stating any further reasons against referring diabetes to the kidneys, we may briefly state our belief that further research will show that it is a disease principally of the stomach, duodenum, and, perhaps, of the upper portion of the small intestine : that it is not inflammation of these parts ; that it chiefly arises from increased activity of the capillary vessels on their internal surface, secerning the fluids requisite to digestion in greater quantity, and, perhaps, in an altered condition ; that the lymphatic absorbents running into venous trunks, and the lacteal vessels, partake in this erythism : that these vessels experience this state from the greater activity or influence of the nerves supplying them and the internal surface of those particular viscera to which they are distributed ; that owing to the erythism of these vessels, the functions of digestion and absorption are craving—hence the desire of food and drink—and these operations are rapidly performed on the substances submitted to them ; that, in consequence of this activity of function,—of the increased digestion and absorption which take place in the stomach, and of an imperfect admixture of the biliary and pancreatic secretions, owing to the great disproportion existing between them, and the increase of chyme furnished by the stomach, a larger quantity of fluids and of imperfect chyle is conveyed into the circulation in an insufficiently, hastily, and morbidly digested state, which the energies of the other organs, from the circumstance of the vital powers being chiefly determined towards those of digestion, are incapable of assimilating in a complete and healthy manner ; that owing to this replete state of the circulating fluid the kidneys have a larger quantity of those materials on which they are intended to act conveyed to them, which stimulate them to increased action ; that the kidneys are no further deranged, than that they have their functions excited by the unusual quantity of the aqueous, chylous, and insufficiently digested materials, which, circulating in the blood, are presented to them, and which, owing to this state, cannot be assimilated with the textures of the body, would be injurious to the system if they remained in the blood, and are removed from it by those organs whose uniform and natural function it is thus to remove them ; and finally, that the materials conveyed so superabundantly into the circulation, as we have stated, and thus se-

creted from it by the natural action of the kidneys, constitute diabetic urine ; and that the various phenomena, essential to and concomitant on the disease, are best explained by considering the digestive canal to be its chief seat, according to the brief view we have just given.

In support of these positions, we may adduce the fulness at the epigastrium, the sensation of internal heat and spasmodic constriction about the region of the stomach, and the frequent sense of gnawing felt in this viscus, &c. That the saccharine quality of the urine results from the properties of the chyle, and from the fluids so abundantly absorbed into the circulation, is shown by the more saccharine state of the urine discharged soon after a meal. Dr. ROLLO* observed, in a case related by him, that this secretion was insipid in the morning, saccharine after dinner, and natural in the evening, even after it was reduced to its natural quantity.

It may be contended against the pathology of this disease, which we have now sketched, that morbid appearances have not been observed in the stomach and intestines to account for the disorder referred to it ; but it should be considered that organs which perform their functions merely in an increased degree generally present but few lesions cognizable to the senses. Indeed, increase of secretion and absorption, the natural functions of the part, do not necessarily produce any derangement of structure ; nor should we expect to observe any, but such as are the consequences of a continuation of this state ; and such are actually what have been observed in the very few instances in which the state of the digestive organs has been noticed ; for so uniformly have the kidneys been considered to have been the seat of the disease, that the condition of any other part has been seldom inquired into. Dr. MARSH, in his very excellent observations on diabetes, has informed us that, in looking over the notes of cases of this disease treated by Dr. CRAMPTON, he observed that blood was vomited in one case, and that “ in almost all of them there was fulness about the epigastrium and uneasiness on pressure.” It is rather singular, though these and other unequivocal symptoms pointed out the real seat of derangement, that the state of the digestive organs has been so seldom an object of attention in post mortem examinations of diabetic patients.

* Since the above was written, we find, on referring again to Dr. Rollo, that he entertained nearly similar opinions to ourselves respecting the nature of this disease. His physiology, however, was deficient, for he had not the advantage of the recent researches regarding absorption, which tend, in an essential manner, to support this view of the disease.

M. DUPUYTREN observed, in the dissection of a case which he has recorded, the stomach extremely voluminous, and the vessels of this organ enlarged, and forming, on its internal surface, a vascular net-work more than usually developed. The duodenum, the commencement of the jejunum, and the cæcum, were also a little redder and thicker than natural.

We refer our readers to the very instructive case of this disease published by Dr. HEINEKEN, which is well calculated to elucidate its nature, and the treatment which ought to be employed against it.—*Med. Repository.*

MM. LARREY AND ROUX'S *Case of Excreted Intestine.*

In a report to the Academie Royale, upon a paper by MM. Bouniol and Rigal, junior, entitled *Intus-susceptio intestinalis*, followed by an excretion of about thirty inches of small intestine and a portion of mesentery,—MM. Larrey, Roux, and Beclard, state, that the patient had been subject to great indigestion, and at last was affected with all the symptoms indicating internal strangulation. There were complete suppression of the alvine evacuations, stercoral vomiting, sharp pains in the abdomen, and an elevated tumour very sensible to the touch in the right iliac region. In the course of twelve days, at the termination of a violent fit of colic, he voided by the anus a portion of intestine and of mesentery. From this moment his amendment was rapid, his health was restored, and there remained no other inconvenience than a slight feeling of pain in the right iliac region. About three months afterwards, the patient having eaten a very great quantity of cherries, was seized with symptoms of peritonitis and died; but the body was not inspected. M. Larrey thinks that a portion of the intestine must have been invaginated, strangulated, and seized with gangrene, separated in consequence from the living tissues, and thrown into the great intestines, whence it was ejected. In wounds of the intestines M. Larrey has seen them re-united as neatly as if it had been done by the suture of a glover. Two pieces of intestine, indeed, unite most readily, as M. Larrey has demonstrated by experiments on dogs.—*Journal of For. Medicine.*

Fatal Effects of Fear.

A man of colour, of middle age, rather above the common

stature, robust, and apparently in good health, was received into the London Hospital, labouring under a moderate-sized aneurism of the femoral artery : an operation was proposed to him, to which he readily assented : on entering the theatre, however, he fainted ; some wine and water was given to him, which he distinctly swallowed, and the operation was proceeded in, the artery exposed, and the ligature applied, but not tightened. During the operation it was observed that no pulsation could be felt in the tumour, but this was accounted for by the fainting : before tightening the ligature, it was suggested by the operator to wait until the pulsation was re-established : some increased attention was then paid to arouse the dormant energies of the patient, and it was remarked that the syncope had continued an usual time : after the attempts had been some time persevered in, a more attentive observation proved that he was quite dead. All the usual resuscitative means were tried, but without effect. On *dissection*, both sides of the heart were found empty, and the lungs turgid with blood : no other particular appearance was observable.—*Lond. Med. Rep.*

IV. MATERIA MEDICA AND PHARMACY.

Dr. HELLER, on *Prussic acid in aneurism of the heart.*

In six cases of aneurism of the heart, for which other remedies had been prescribed in vain. Dr. Heller employed the hydrocyanic acid with decided advantage. In three of these cases, the aneurisms had existed for several years, and had arrived at that stage, wherein the extinction of life was constantly to be apprehended ; and although in these cases it did not materially retard the fatal termination of disease, it abated the afflux of blood to the heart, diminished the force of its contractions, and of course relieved the difficulty of respiration. These cases it should be observed, had been under the care of the most distinguished physicians in Paris, who had employed general and local bleeding, low diet, digitalis, blisters, and the various other remedies which have been found useful in the treatment of similar affections ; and always without relief.

In the other three cases in which Dr. Heller prescribed the hydrocyanic acid the result was still more fortunate. In one instance the pulse was reduced from one hundred and sixteen in a minute to eighty, with no other inconvenience than debility, which disappeared at once whenever the remedy was discontinued. In the administration of the hydrocyanic acid, Dr. Heller

gave ten drops the first day, and increased the quantity five drops each succeeding day, and it is important to observe that the beneficial effects of the remedy were not very remarkable at first, and it was not until thirty or forty drops were given daily, that any decisive and permanent advantage could be expected.
—*Revue Medicale.*

Dr. TWEEDALE's case of Anasarca treated by Acupuncture.

The patient was labouring under anasarca, in a very advanced stage ; the cellular membrane of the upper and lower extremities and trunk being enormously distended with fluid, accompanied with cough and most distressing dyspnœa.

Several days having elapsed under very active treatment without any material relief to the patient, I was induced to recommend a trial of acupuncture. That operation was readily submitted to, and was performed with a common needle of middling size, guarded with a small piece of sealing wax at the eye, to prevent injury to the Surgeon's finger, and with a thread passed a few times round the needle, at rather less than a quarter of an inch from the point, in order that the punctures might not exceed the depth required. With a needle thus guarded, about a dozen punctures were made in each leg, within a very few minutes, and with little or no pain to the patient.

The result has been most satisfactory : the arms and trunk were, in the course of a week, reduced to their natural size, and nothing now remains but slight œdema of the ancles and feet.—*Med. Repository.*

M. LASSAIGNE on Pyro-citric Acid.

This enterprising inquirer has been rewarded by the discovery of a new acid. It is produced by distillation of citric acid ; it is white, inodorus, and of a strongly acid taste, and generally occurs in a white mass, composed of fine small needles. It melts on a hot body, and is converted into very pungent white vapours, leaving traces of carbon. It is very soluble in water and in alcohol. At 50° of Fahrenheit, water dissolves *one third* of the weight of it. It is composed of carbon, 47.5 ; oxygen, 43.5 ; and hydrogen, .9. With the oxydes it forms salts, which differ in their properties from the citrates ; these M. Lassaigue has examined the pyro-citrates of potash, lime, barytes, and lead.—(*Journal de Pharmacie.*)

MEDICAL VARIETIES.

DR. DARWALL, on the Diseases of Birmingham.

In the quarter which terminated on the third of July, Dr. Darwall reported 685 cases of disease—including 67 cases of Asthma, 38 of Phthisis, 173 of Dyspepsia, 27 of Marasmus, 18 of Chronic Rheumatism, 85 of Typhus fever.

It is an old remark of medical authors, that different seasons are marked by peculiar diseases,, and that every other affection will, to a certain degree, be influenced by the prevailing epidemic. The present Table affords a remarkable confirmation of this doctrine. The disorders which had spread so widely through the three first months of the year, almost entirely disappeared in April ; when the weather, though still changeable, was upon the whole very much milder than it had been for some time.—Its variableness however, and the quick and sudden changes which succeeded the severe winter, were favourable to rheumatic attacks ; and those individuals were more especially liable to them, who were already suffering under dyspepsia. In several of these, decided rheumatism occurred ; but in very many, there were severe though transient pains. The treatment, for the most part, was directed to the establishment of the general health. The medicines usually appropriated to rheumatism as sudorifics, colchicum, &c. were either useless or injurious.

Affections of the head, as in the corresponding quarter of last year, have been frequent, but not upon the whole very severe. In some cases, bleeding, both general and local, was necessary, more commonly the latter was sufficient. It is too usual in these disorders to employ purgatives very largely, without any regard to the dyspeptic symptoms, which almost always succeed, and very often accompany them. Among the reported cases, several aggravated by this plan were remarked, which quickly disappeared under the use of mild tonics and alteratives.

The same remark regarding purgatives may be extended to dyspepsia, in which, since Dr. Hamilton's publication, they have by many practitioners, been largely and imprudently employed. I have seen an old woman, who was rather in want of nourishment than of depletion, brought to death's door by their unmerciful operation. The most successful plan, where the bowels are costive, in the Dispensary, has been a combination of bitter tonics with neutral salts, especially the sulphate of potash, so as to ensure two or three free but not very relaxed dejections daily. Occasional active purgatives were not attended with an equally good effect.

Phthisis pulmonalis is always a common disease in large towns; several of those in the Table appeared a consequence of amenorrhœe. The first symptoms were precisely such as characterize this complaint—as disorder of the primæ viæ, pains in the legs, swelled ancles, &c. but very quickly indications of ulceration in the bowels were manifest, to which, in a short time, a hacking cough and hectic fever succeeded. The progress of such cases is usually very rapid, and death ensues before there has been time for much emaciation. Dissection, in every instance, where examination has been made, has shown the mucous coat of the alimentary canal extensively ulcerated, and the ulceration has very frequently occupied the larynx and bronchial tubes.

One of the cases of hypochondriasis had been of several months duration, and during that time had been treated by palliatives, as ammonia, spirits of lavender, &c. After freely but not violently evacuating the bowels, cold water poured from a considerable height upon the head, completely removed it. It would be very desirable to ascertain what are the proper cases for this practice; for nothing is more certain than that there are many persons, who appear fit subjects for it, to whom it is decidedly injurious. Like every other remedy of great power, it bids fair for getting into disrepute from its indiscriminate employment. The best plan at present, till further experience may give more certain directions, is to be extremely cautious at first, and to increase it, as the strength of the patient permits, and the relief afforded encourages.

It has been insinuated by some of the Journalists, that amidst the numerous successful cases of Tic Douloureux published by Mr. Hutchinson, other diseases may have been mistaken for it. However this may be, several opportunities have been afforded me, of proving that the efficacy of the carbonate of iron in relieving pain, is not confined to that complaint. A case of regular intermittant hemicrania was entirely cured by it, and much relief was conferred upon a case of syphilitic rheumatism, in which the pains came on most severely in an evening. Great alleviation also was effected in an instance of rheumatic gout of long standing, in which the joints were red and swelled.—The visible effect upon the digestive organs was similar, very great improvement in the appetite and spirits. In one case, accompanied with hysteria, the nervous symptoms and the pain vanished together.

The cases of marasmus have been numerous, and upon the whole successful. In one instance, great benefit ensued from the employment of the tartarized antimonial ointment rubbed upon the abdomen.—*Edinburgh Med. and Surg. Journal.*

OBITUARY.

It is with feelings of no common regret, that we have to announce the death of Dr. BAILLIE, which took place at his seat in Gloucestershire, on the 23d ult. Dr. Baillie, alike distinguished as a physician, and amiable as a man, has run a career of honour and profit which falls to the lot of few. Acknowledged by the public and by his brethren as the undisputed head of the profession, he has left a blank which we can scarcely hope to see filled. In our next Number we shall present our readers with a short biographical sketch of this eminent individual,—the humble tribute of our respect for so much worth and talent.—*Lond. Med. and Phys. Journal.*

MEDICAL LITERATURE OF THE
UNITED STATES.

American Medical Recorder, VOL. VI. NO. IV.

ART. I. *Observations on the use of Tartar Emetic in Pneumonia.* By ALEXANDER M'CALL, M. D. of Nashville, Tennessee.

The object of this paper as we learn from the title, is to prove the efficacy of tartar emetic in pneumonia. The writer has recorded half a dozen cases, in most of which the tartar emetic appears to have been employed, but it would hardly seem possible, among the multiplicity of measures adopted that he should ascribe the recovery of his patients to the efficacy of a single remedy. In one case "pediluvium and an application of a large blister over the stomach and side, were the first remedies used. Bled sixteen ounces, and found the blister had drawn, before complete reaction had taken place. Next, a copious dilution of the bowels with weak senna tea, containing antimonial wine and spirits of nitre, which produced an active purging of bilious matter. Following day gave calomel and jalap; at night, spiritus mindereri with pediluvium."

The patient rapidly recovered, but we have not been so fortunate as to discover in the history of this case the strong evidence we were led to expect in favour of tartar emetic. However, the doctor's practice was unquestionably good, for he assures us that "the prescriptions were constantly suited to the

symptoms of each case." But if there is no novelty in the practice there is something peculiar in the language of this communication.

"A hive of honey is collected, with much labour, from various flowers ; and the queen of the overflowing comb guards and keeps the commonwealth for wintry wants.

So will the protecting spirit of medical literature preserve, for time of need, each fact or opinion that can conduce to lessening human woe, when death, in epidemic strides, shall again sweep over our western lands."

We might quote numerous other paragraphs, equally calculated with the above, to prove the efficacy of tartar emetic in pneumonia.

ART. II. *Hints on Melancholy.* By Dr. GEORGE R. PITTS, Member of the Philadelphia Medical Society.

"Melancholy," says Dr. Pitts, "the disease on which I wish to make a few observations, has been but slightly noticed by medical writers ; and whenever mentioned, its symptoms have been so blended with those of mania, hypochondriasis, dyspepsia, and chronic hepatitis, that the reader finds it impossible to draw a line of demarcation between them."

This *melancholy* deficiency Dr. Pitts has undertaken to supply, and if others have written with perspicuity on this subject, the writer before us does not appear to have been particularly enlightened by their productions. Our readers we presume have never been perplexed by the confusion of symptoms mentioned in the above extract, and if they have been, the observations of Dr. Pitt, would only leave them worse confounded.—After stating that melancholy is a disease of low intellectual actions, that mania betrays a state of phlogistic diathesis, and that hypochondriasis is nothing more than an advanced stage of the former malady, the writer proceeds to the consideration of the causes, symptoms, and cure of melancholy.

"The proximate cause of melancholy is mental debility." In the next page we are told that philosophers and poets, such as Johnson, Goldsmith, Swift, Watts, Smollett, Rousseau, Voltaire, &c. have been more especially its victims, that the disease multiplies in proportion as society becomes intelligent, and moreover that the negroes of Virginia are entirely exempt from its ravages. There are some strange inconsistencies in this paper, which our limits will not permit us to expose. The writer appears to have entirely overlooked the works of those who have been engaged in the investigation of mental diseases, and to think that the subject which he has discussed is entirely new.

ART. III. *A case of Femoral Aneurism, spontaneously cured by a rupture of its Sac.* Communicated by Dr. ROBERT ARCHER, of Norfolk, Virginia.

"Petro Valentine, an Italian, in the 61st year of his age, of a strong and vigorous constitution, but worn down with age, indigence and a dissolute life, experienced considerable inconvenience from an increasing weakness and pain of the left leg, and on the 7th May, 1820, requested medical assistance.

Upon close examination, a flat circumscribed tumour, about an inch or inch and a half in diameter, was visible about the middle of the thigh, on the inner side of the sartorius muscle, and immediately over the femoral artery. The pulsation of the tumour was not only perceptible to the touch, but to the sight, and corresponded with the pulse at the wrist; its contents were fluid and yielded to pressure, but immediately resumed its original size when the pressure was removed; and it did not appear to be materially affected whether it was applied above or below it.

On the 19th of May, the patient experienced an instantaneous and violent pain in the knee, attended with considerable noise, proceeding from the rupture of the tumour. An immediate distention of the whole limb ensued, accompanied with an extensive ecchymosis from the glutei muscles inclusively, down to the knee, giving it a dark livid colour; the tumour had entirely disappeared.

The patient was much debilitated by the extravasation of blood, and complained very considerably of tension of the thigh; his pulse very feeble and his spirits depressed. A compress and bandage were applied tolerably tight over the seat of the former tumour, and the limb bathed with tincture of camphor.

This treatment was continued for several days; on the third day, the sugilation appeared to be diminished and the thigh was evidently smaller, the patient's health too was improving; and finally, on the 20th day after the rupture, the swelling and ecchymosis had so far subsided, as to permit him to walk about the room, and in a month more he was enabled to follow his usual avocation."

Dr. Archer declares, with confidence, that the above was a case of true aneurism, and he thinks it surprising that so large a quantity of blood should have been absorbed in so short a space of time.

ART. IV. *On the use of the Actæa Racemosa in Phthisis Pulmonalis.* By Dr. T. S. GARDEN, of Charlotte, (Va.)

Dr. Garden supposes that he is the only physician who has

any knowledge of the virtues and effects of the *Actæa* except those in his own immediate section of the country. He has for a long time laboured under a conviction of its efficacy, but has delayed giving publicity to his opinion until evidence of a more unquestionable nature could be adduced in its favour. We shall endeavour to sum up the evidence brought forward in this paper, and leave our readers to judge how far it is conclusive. In the first place, the Doctor attributes the degree of health which he enjoys at present, to nothing but the use of this medicine, aided by suitable regimen. Without giving us any account of his previous situation, he goes on at once to tell us what benefit he derived from the use of the medicine, the hectic paroxysms were checked, nocturnal evacuations diminished, expectoration of fluid from the lungs was speedily arrested, cough was less troublesome, appetite improved, and he speedily abandoned all remedies, "except attention to regimen and exercise." The next case was that of a young man who had been troubled with pulmonic symptoms at intervals for several months. His debility was so great that he was unable to turn in bed without assistance. The doctor ordered frequent bleedings, left some mercurial powders, with a portion of tartar emetic, and a blister, to be applied to the chest. "This plan was rigorously pursued for some time without any relief or even amendment." The frequent bleedings were at length discontinued, the internal laxatives and external irritants were given up, and the patient began with the *Actæa*. In two or three weeks he was able to walk and has remained free from any disease of the lungs to the present time. "I have, says Dr. Garden, advised the use of the *Actæa racemosa*, in other cases, but those described are the only ones, which have been equally happy in the result." In the last of the above cases the *Actæa* was unquestionably useful, by taking the place of remedies, which Sangrado himself would have withheld from a patient so weak as to be unable to turn in his bed. We would therefore advise the Doctor to pursue his researches.

ART. V. *Peruvian Balsam in Gangrene.* By Dr. ROBERT ARCHER, of Norfolk, (Va.)

This paper is written to prove the utility of Peruvian Balsam in gangrene. Dr. Archer states that he has used it with the most decided advantage and found it particularly applicable to sloughing ulcers of the extremities, attended with gangrenous symptoms. He mentions a case of this kind in which the Balsam arrested a gangrene which had extended two inches beyond the ulcer.

ART. VI. *A case of Puerperal Fever, treated by Spirits of Turpentine.* Communicated by Dr. JAMES H. LUCAS.

In a case of puerperal fever, Dr. Lucas prescribed ten grains of calomel to be succeeded by castor oil, by which the patient was considerably relieved. On each of the three succeeding mornings two drams of the oil of turpentine were given, followed by a spoonful of castor oil in the evening; and numerous dark, green fetid stools, and a rapid recovery was the result. We take this opportunity to give the testimony of Dr. Payne of Nottingham in favour of the oil of turpentine in puerperal fever.

He observes, "Whether early or late in the disease, the turpentine, when properly administered, avoiding at the same time every thing that is likely to prove irritating, will effectually remove every symptom of the complaint, which it appears to do, by augmenting the secretions into the intestines, to an extent proportioned to the amount of the inflammation, whether affecting the uterus and its appendages, or the peritoneum. The bowels are as quickly and as powerfully excited to action by the turpentine as the vessels which open into them; and the profuse discharge that takes place does certainly, according to the experience I have had in puerperal fever, more quickly and effectually relieve the patient of her sufferings, than either bleeding or any other remedy. If the turpentine, as it appears to do, causes a vast secretion of fluid and lymph into the bowels, is it not, by this operation, likely to relieve the inflamed vessels of the neighbouring parts of great part of their contents; and will they not therefore be as efficiently emptied as if local bleeding had been applied? The immense discharge from the bowels, by the use of the turpentine, never occasions those secondary symptoms that I have seen follow the extensive use of the lancet, which are even more to be dreaded than the disease itself, one of which is a sort of agitation of the vascular system, such as I cannot describe: during the continuance of which, I am of opinion, those effusions take place in the cavity of the abdomen, which are almost invariably followed by death."

ART. VII. *A case of Puerperal Convulsions.* Communicated by Dr. JAMES H. LUCAS.

This paper contains the history of a case of puerperal convulsions, anterior to the commencement of labour, in which bleeding to the extent of seventy ounces, and blisters were employed with satisfactory success. The convulsions gradually subsided into slight twitchings which lasted several hours, and on the succeeding day labour commenced.

ART. VIII. *On the use of Alcohol in the disease produced by the bite of the Rattlesnake.* By WILLIAM MAYRANT, Esq.

This paper contains the history of three cases, in which alcohol, ammonia, and capsicum were successfully employed to counteract the deadly influence of the rattlesnake's bite. Two quarts of spirits are said to have been given to one patient in a single night, and in another case, the patient recovered by the use of a quart in ten or twelve hours.

ART. IX. *Two cases of Puerperal Convulsions.*

Dr. Martin has recorded the history of two cases of puerperal convulsions. In the first, the opposition of attendants, restrained him from using the lancet to the necessary extent, and the patient died. In the other case, a black woman, having been delivered of three living children, was violently seized with convulsions. Dr. Martin finding no opposition to the lancet, hastened to open a vein, from which in about two hours one hundred and twenty ounces of blood was permitted to escape. The patient is said to have recovered in a short time.

ART. X. *Case of Fracture of the Cranium.* By WILLIAM HAMMOND, M. D.

A boy 14 years of age, was thrown from a horse, the scalp detached from the cranium, and the parietal, frontal, and temporal bones extensively fractured. The history and treatment of this extraordinary case we give in the language of Dr. Hammond.

"All the squamous plate, a part of the petrous portion, about a fourth of the superior circumference of the external meatus, with a considerable part of the zygoma of the temporal bone, together with the fractured and depressed portions of the parietal and frontal bones, were removed. A splinter from the temporal bone was driven through the dura mater into the brain, and divided the median artery of that membrane. The flow of blood was profuse during the operation, and was more so when over. Several attempts to apply a ligature to the wounded vessel proved unsuccessful; recourse was then had to compression, which also failed: And as the blood flowed fast from the wound, some decisive step to arrest its progress was demanded.

Death was certain from the continuance of the hemorrhage; it was therefore concluded to enclose the artery with a ligature as the only resource; this was done by Dr. H. by passing an armed needle through the dura mater, around the artery and out upon the other side, including about three fourths of an inch of brain, dura mater and artery.

The operation succeeded; the bleeding ceased; the ends of

the ligature were brought out through the incision of the scalp, and the wound was dressed in the usual way. On the 15th day from the operation, the ligature was removed with the dressing. The patient recovered.

New-York Medical and Physical Journal VOL. II. NO. III.

ART. I. *An Examination of the Question, Whether the Climate of the Valley of the Mississippi, under similar parallels of latitude, is warmer than that of the Atlantic Coast?* By LEWIS C. BECK, M. D.

It has been currently reported that the valley of the Mississippi, is less cold than the corresponding latitudes on the Atlantic coast. This opinion was sanctioned by Mr. Jefferson, and defended by Volney, but the observations of Dr. Beck have proved it to be erroneous. From a comparison of the temperature of different places, as indicated by the thermometer and by the flowering season of well known plants, it appears that "the mean temperature of Cincinnati is the same as that of the corresponding latitude of the Atlantic coast; of St. Louis one-tenth higher; and of Council Bluff two degrees and a half lower." From these data it is inferred that the temperature of the valley of the Mississippi, is nearly one degree lower than that of the Atlantic.

ART. II. *Observations on Dysentery.* By DR. ALEXANDER COVENTRY, of Utica, N. Y.

The observations of Dr. Coventry relate to the symptoms, causes, and treatment of dysentery. In speaking of the various remedies which have been employed in the treatment of this formidable disease, the Doctor betrays no lack of confidence, or to use his own expression, he "feels more at home," while defending his own practice to the exclusion of every other.— "Burned brandy and sugar, oak bark, and blackbrier root, the catholicons of the wise matrons of this and former times, have cured many dysenteries, by putting an end to the sufferings of the patient. The ipecacuanha, rhubarb, and opium, recommended by systematic authors, are mere trash." Leaving these wise dames to answer for the catholicons which they are said to have prescribed with so much effect, it becomes our duty to observe, that the Doctor denounces as *mere trash*, remedies which have been found useful in other hands, and are considered indispensable, by a large majority of our profession, and are as we shall soon learn employed by Dr. Coventry himself; remedies which in some forms of dysentery will be found "to be the

safest, the mildest, the surest, and at the same time, the speediest of all eccoprotics." The remedies upon which Dr. Coventry places his chief reliance are venesection, if the patient is young and robust, the warm bath and the neutral mixture. He is particularly fond of the latter remedy, which is to be "continued till every symptom of the disease has disappeared." If however every symptom of the disease should not disappear, we are to employ calomel, Dover powders, and blisters, and if the disease alternates with ague, or puts on a putrid form, bark is to be used with freedom. The Doctor states that for the last 25 years he has not encountered a fatal case of dysentery in an adult. We have known the same argument brought forward in defence of a widely different practice, but before we allow it to be conclusive, we should know the number and severity of the cases which have fallen into the Doctor's hands.

ART. III. *Account of the Introduction of the Yellow Fever into Pensacola and New-Orleans in the year 1822.* By P. S. TOWNSEND, M. D.

The only three places in the United States which suffered from yellow fever in 1822, are said to have been New-York, New-Orleans, and Pensacola. Dr. Townsend observes that the importation of the disease into New-York from Havanna, has been proved by abundant and conclusive testimony; and the object of this paper is to show that the yellow fever of Pensacola was likewise imported from Havanna, and thence transported to New-Orleans. To such of our readers as feel an interest in the long agitated question respecting the origin of yellow fever, we recommend the perusal of this paper.

ART. IV. *Journal of Medical Cases, occurring in a Voyage to the East Indies, in the year 1819, on board of the ship Neptune.* By JAMES EDDY, M. D. of New-York.

Dr. Eddy's journal does not contain the history of any extraordinary case of disease or of any remarkable cure, but it presents a fair statement of the few diseases which fell under his observation in a voyage to the East Indies.

ART. V. *On the use of Mercury in Onychia Maligna.* By JOHN B. BECK, M. D.

This term was employed by Mr. Wardrop in one of the early volumes of the Medico-Chirurgical transactions, to designate an obstinate affection of the fingers and toes, of which he has given a very accurate account. "The commencement of the disease is marked by a degree of swelling of a deep red colour of the

soft parts at the root of the nail. An oozing of a thin ichor, afterwards takes place at the cleft formed between the root of the nail and soft parts, and at last the soft parts begin to ulcerate. The ulcer appears on the circular edge of the soft parts at the root of the nail, it is accompanied with a good deal of swelling, and the skin, particularly that adjacent to the ulcer, has a deep purple colour; the appearance of the ulcer is very unhealthy, the edges being thin and acute, and its surface covered with a dull yellow or brown-coloured lymph, and attended with an ichorous and very fetid discharge. The growth of the nail is interrupted, it loses its natural colour, and at some places appears to have little connexion with the soft parts. In this state, I have seen the disease continue for several years, so that the toe or finger became a deformed bulbous mass. The pain is sometimes very acute, but the disease is more commonly indolent, and accompanied with little uneasiness: this disease affects both the toes and the fingers. I have only observed it on the great toe, and more frequently on the thumb, than any of the fingers. It occurs, too, chiefly in young people, but I have often seen adults affected with it."

The evulsion of the nail, the application of caustic to the ulcerated surface, and the amputation of the affected member, are the only local means we possess of removing this painful affection. Mr. Wardrop found, however, that whenever the system became affected with mercury, the ulceration assumed a healing appearance and the tumefaction gradually subsided. Dr. Beck, in the paper before us, has described four cases, to illustrate the efficacy of this, which we should consider sufficient to establish the propriety of the practice. A boy ten years of age, ran a small splinter, under the nail of his thumb; in a few days the parts about the root of the nail assumed a livid colour, and at the same time began to swell, and afterwards to ulcerate, the extremity of the thumb was enlarged, and the nail became loose. The patient was directed to use pills composed of calomel and opium. "In about ten days the mouth became affected, and a pretty free salivation ensued. Almost instantaneously upon this effect being produced, the ulcer put on a different appearance. In a few days the discharge from it ceased completely, and in about three weeks the whole had healed, and the swelling almost entirely subsided. Between two and three months after this a new nail had grown out, and the thumb has remained healthy and sound to the present day."

In a second case the mouth was kept sore about a fortnight, with the same satisfactory result, as in the preceding case.

In the third case the disease had continued nine or ten months,

when a slight salivation was produced and continued until the disease was completely removed. In the fourth case mercury, in the form of blue pill was given, until the gums were slightly affected, when the discharge was arrested and the ulcer healed. Dr. Beck mentions another case which from the exact resemblance it bore to the preceding, he entertained no doubt would have yielded to the same treatment. The patient commenced with the blue pill, but before the mouth became affected, the case fell into the hands of a "cutting surgeon" who amputated the finger.

ART. VI. *Case of Phlegmasia Dolens, alternating with Pneumonic inflammation.* By ABRAHAM D. WILSON, M. D. of New-York.

In this case a lad seventeen years of age was seized with the symptoms of pneumonic inflammation. In about thirty-six hours a metastasis took place to the right leg, which presented a remarkably white and glassy appearance. On the fourth day the swelling of the limb began to subside—and on the fifth the pulmonic affection returned. "Here, as will be observed, the pneumonic inflammation alternated with the affection of the limb; and during the active stage of the phlegmasia dolens all pulmonic irritation ceased. This case with many others now on record, bears the most positive testimony in favour of the opinion lately adopted of the inflammatory nature of phlegmasia dolens. Moreover, the disease seems to arise from any sudden interruption to the secretions and excretions. Febrile irritation generally, if not always, accompanies the disorder; its terminations are those common to other inflammatory diseases, and it is most successfully treated by venesection, cathartics, diaphoretics, and such remedies as tend to lessen general excitement."

ART. VII. *A Methodical enumeration of the principal Parasitical Animals.* By SAMUEL L. MITCHILL, M. D. &c. of New-York.

In this paper, Dr. Mitchill has treated of those tormentors which inhabit the bodies of animals during the whole or a part of their lives. We give the following extracts as specimens of this instructive, we need not say, learned paper. "Hither must be referred the flea, (*pulex*,) one of whose species the *penetrans* is the *chigoe* or *jigger*. It has been questioned whether this animal ought not to constitute a different genus. Insinuating itself under the nails of the toes and the skin of the heels, it soon causes a troublesome tumour by its numerous laying of eggs in

the flesh of those parts. The hatching of these gives rise to a malignant and ill-conditioned ulcer, hard to remove and sometimes fatal. The negroes who suffer most from these invaders, possess the greatest skill in extracting them; frequent washing, especially in water impregnated by tobacco and other acrid plants, is considered the best preventive."

"The parent insect of the *Æstrus equi* denominated the *nit-fly*, buzzes about the legs, shoulders, and sides of horses, and deposits its eggs or nits on the hairs, to which it fastens them by a glutinous substance. As the animal licks and bites itself, the nits or eggs are conveyed into the stomach where they change to larvæ, called *bots*, and adhere by hooks to the inner coat.—After having lived there the desired time, they detach themselves, pass down the alimentary canal, and are voided with the dung; after which they assume successively the forms of *crysalis* and *imago*."

REVIEW.

ART. VIII. *Essays on Fevers and other Medical Subjects.* By THOMAS MINER, M. D. and WILLIAM TULLY, M. D.

In our last number, we mentioned a review of this work, which was published in the *New-England Journal*; and we now invite the attention of our readers to a review of the same volume, characterized by a greater share of urbanity and candour. The reviewers approve of Dr. Miner's giving calomel in the early stages of fever, in which practice he is represented virtually to coincide with his predecessors; but they represent his practice of "invariably supporting the system after the use of calomel, as a solecism which is inexplicable, except on the supposition of Dr. Miner's cases being of a low and cold species of typhus."*

The reviewers recommend, as full of practical information, the essays on the pulse, crisis of fevers, types and stages of fevers, on experience, &c. but assert that the very title of the essay, "Authors not practical men," seems to come with an ill grace from a writer, who, like Dr. Miner, has no slender claims

* Armstrong and others who are represented to give calomel in the manner recommended by Dr. Miner, employ that agent for the purpose of arresting the progress of febrile action. Dr. Miner, on the other hand, gives calomel to moderate its severity, and prepare the system for the use of the bark, and other tonics, which constitute an essential part of his medication, and to these he attributes the rapid recovery of his patients. In this view, Dr. Miner's claim to originality is unquestionably well founded, and the employment of bark is no longer an inexplicable solecism. The propriety of the practice we leave for others to defend.—ED. M. JOURNAL.

to authorship. They object, and we think with justice, to the spirit of the book, and assert, that in more than one instance, the author evinces a disposition to indulge in unworthy cavilings—that a mere difference of opinion is sufficient to call forth epithets not only unbecoming in themselves, but wholly unjustifiable. “We have no reason to doubt the testimony of Dr. Miner when he informs us that sthenic diseases have not prevailed in his part of the country; and we must even lend our belief to the statement, though we confess it is not very cordially, that even pleurisy and other inflammations, scarcely need blood-letting; but we cannot acquiesce in the extension of this statement, that no sthenic diseases prevail any where. And much less can we permit Dr. Miner with impunity to condemn, as founded in cruelty, ignorance, and audacity, the practice of those, who day after day meet with such cases, and use proper antiphlogistic means in consequence.”

“The author’s (Dr. Tully’s) last essay contains an analysis of Dr. Miller’s account of an epidemic fever of Virginia, published in Dr. Chapman’s Journal for November, 1822. We cannot take any further notice of this analysis than to observe, that Dr. Tully evinces in it, the same unsparing disposition with his friend Dr. Miner, to condemn venesection and evacuation generally, however successfully they are employed, or however ably they are defended. If the successful treatment, by these means, of several hundred cases in an epidemic, does not entitle them to the character of being safe and useful, then are we at a loss for a standard by which to test the value of any plan of treatment, and we are compelled to doubt how far Dr. Tully or Dr. Miner are satisfied of the safety of their own method.—We hope that neither of these very intelligent physicians will misconstrue our motives in thus freely animadverting upon their opinions of the practice of others. They are mistaken if they suppose for a moment that we undervalue their labours, or mean to throw any reflection upon the intelligence, the ability, and the vigour of thought which they have displayed in the composition of these essays. With the exception of the one fault, to which we have just adverted, we must express our unequivocal approbation of the general spirit and the manly diction which pervade their writings, and which we hope will not fail to inspire our professional brethren in the country at large, to imitate the example of our enterprising friends.”

ART. IX. *A Flora of the Northern and Middle Sections of the U. States.* By JOHN TORREY, M. D. &c.

“The specimen before us, in our opinion, entitles the au-

thor to a high rank among the scientific botanists of the present day; and it is recommended to an American public, as the work of a native naturalist who describes the indigenous plants of his native land, generally from genuine specimens, assisted by a profound knowledge of his subject, and a correspondence with the most celebrated botanists of Europe."

ART. X. Dr. MOTT's *Case of Traumatic Tetanus cured by Oil of Turpentine.*

"The patient was a very athletic man, with a dreadfully contused and lacerated hand, but without fracture. About ten days after the injury, trismus supervened, when I immediately amputated his fore-arm. No abatement of his symptoms followed the operation. All the terrible train of tetanic symptoms quickly followed—opium, laudanum, bark, wine, cold affusion, warm bath, tobacco, and blisters upon the whole spinal column, failed in giving relief. For several days he took six and seven drachms of laudanum every hour, night and day, without any of the narcotic effects being produced. As his disease had now continued several weeks, and appeared almost desperate, we gave him a teaspoon-full of turpentine every fifteen minutes for two hours, when the spasms completely left him. It was continued at longer intervals until he took twelve ounces, which was given him in thirty-six hours from the time of its first administration.

It produced a violent erythematic inflammation of the stomach and intestines, which was however readily subdued by the proper remedies. He was, however, completely cured of the tetanus."

In taking leave of the Journal from which the above extracts are taken, we deem it an act of justice to the very able Editors by whom it is conducted, to state, that it is enriched with materials of no ordinary value. We have endeavoured to make our readers acquainted with its most interesting features, in the hope that some of them would be induced to cultivate a more intimate acquaintance with a work of so much merit.

AMERICAN MEDICAL REVIEW.

We take this opportunity to call the attention of our readers to a new Journal, dedicated exclusively to REVIEWS and a summary of Medical Intelligence, to be conducted by Drs. Eberle and M'clellan of Philadelphia. The first of these gentlemen is well known, as the author of an excellent treatise on the *Materia Medica*, and for several years past, as the successful editor

of the Medical Recorder. Dr. M'Clellan we have long known to be ardent in the pursuit, and successful in the acquisition of Medical Science, and while in such hands, we would confidently recommend the Medical Review to the attention and patronage of our readers. They will find the prospectus at the Bookstore of Messrs. Huntington and Hopkins, o. this city.

FEVERS.

An idea prevails, and we believe not without foundation, that the character of fevers, is peculiarly liable to vary in different countries, and at different seasons. Works of our own age and country, having for their object the history and treatment of fever, have on this account strong claims to the attention of the American physician. A work of this description, the Essays of Dr. Miner, has been recently published, and two others are announced as in the press, one by Professor Chapman, of Philadelphia, and the other by Professor Smith, of New-Haven.

PREVAILING DISEASES.

In this and several of the preceding Numbers of the Monthly Journal, we have presented our readers with an abstract from the Quarterly Reports of diseases in Europe. Our object at this time is to suggest the propriety of adopting the same custom in this country. To those physicians who are engaged in extensive practice, and especially to those Editors, whose object it is to make their readers acquainted with the state of Medical practice at home, and the character of our prevailing diseases, we recommend some attention to this subject.

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